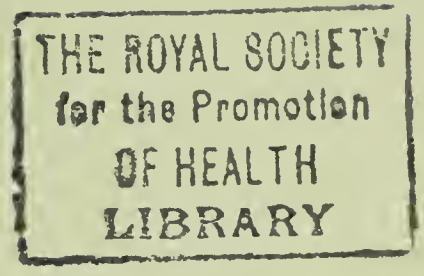


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CITY OF DURBAN



Annual Report

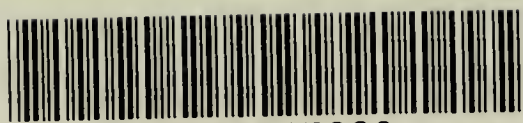
OF THE

CITY MEDICAL OFFICER OF HEALTH

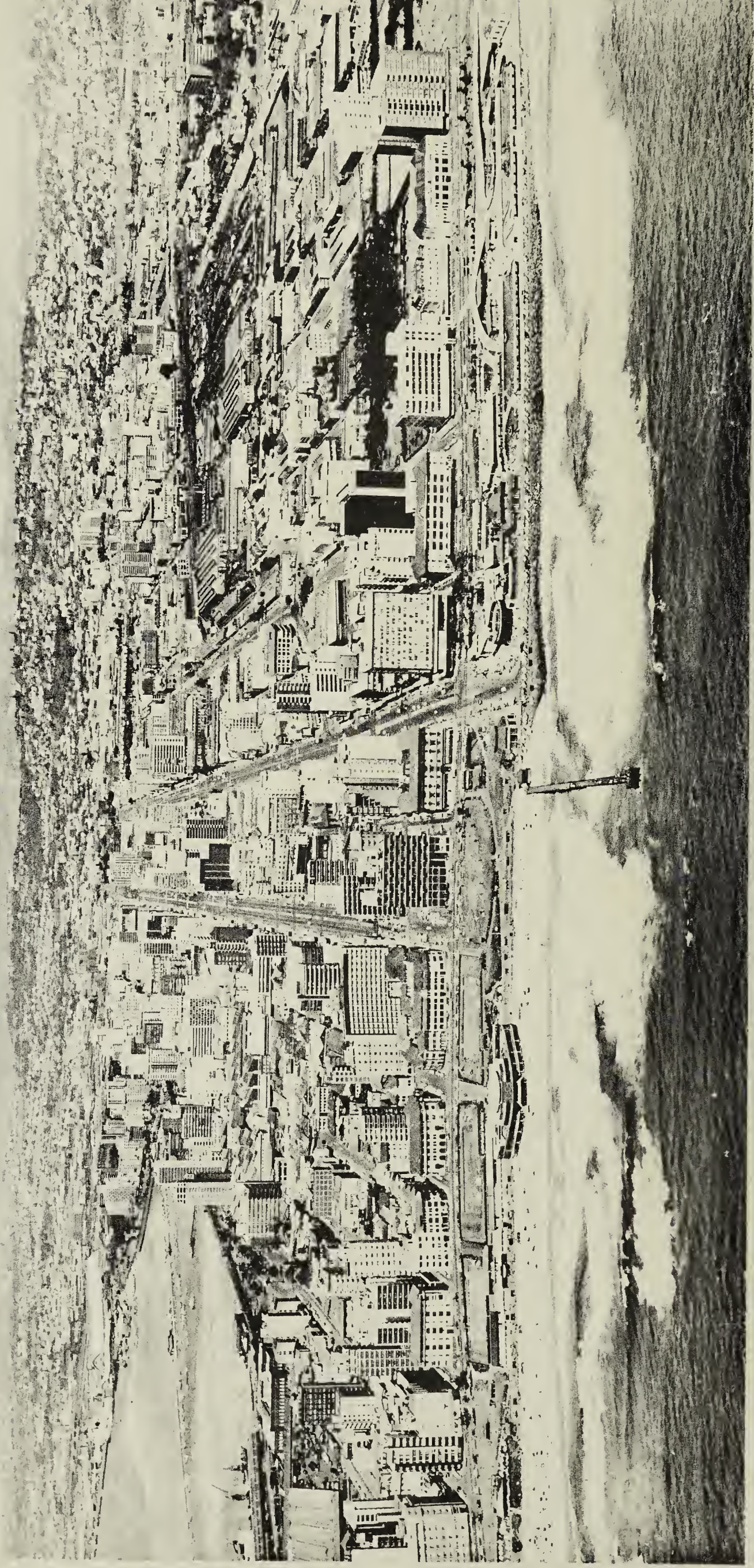
YEAR ENDED 31st DECEMBER 1965

DURBAN CORPORATION

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ANNUAL REPORT : 1965

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City Health Department,
9, Old Fort Place,
DURBAN.

17th February, 1967.

Her Worship the Mayor and Councillors
of the City of Durban.

Madame Mayor, Ladies and Gentlemen,

I have the honour to present the 63rd Annual Report on the Public Health of Durban with which is combined an account of the activities of the City Health Department for the year 1965.

The estimated population of the City was 656,222 being made up of 178,500 Europeans, 29,000 Coloureds, 250,531 Asiatics and 198,191 Bantu. The decline of the white birth rate continued, the crude birth rate being 17.80 as compared with the Republic-wide rate of 23.00 per 1000 population for this group, the rates for the Coloured, Asiatic and Bantu communities being 48.17, 35.19 and 45.42 respectively. The infant mortality rate has shown a small increase amongst the European and Coloured communities and a larger increase amongst the Bantu. Only the Asiatic rate showed an improvement. Road accidents accounted for 178 deaths and suicides for 63, a needless waste of 241 human lives.

Attendances at the Child Health Clinics remained at a most satisfactory level and the amount of skimmed milk powder distributed under the State subsidized milk powder scheme to prevent kwashiorkor increased markedly. Ninety-five fewer cases of kwashiorkor were notified than in the previous year, and it is of note that only approximately 35% of all cases notified were proved to be Durban residents and these had not attended any of the Child Health Clinics. Deaths of City cases from malnutrition continued to show a decline which started in 1961. Immunisation services continued to be well patronised, particularly for vaccination against smallpox.

No local cases of formidable epidemic diseases were notified during the year, a point of particular interest as there was an increase in smallpox in Africa by some 3000 - 4000 cases as compared with the previous year. With the ever increasing international traffic it has become increasingly important, especially in Durban with its huge port facilities, to bear in mind constantly the global epidemiology of the formidable epidemic diseases.

In regard to the remaining notifiable diseases a slight decrease in the number of typhoid cases was noted. There were 9 cases of poliomyelitis, one more than in 1964, all the cases being Bantu children under 3 years old. All the cases occurred during the last three months of the year, suggesting that the early months of 1966 would show an upsurge of cases until after summer. It is pleasing to record a further drop in the number of diphtheria cases notified, there being, including 3 carriers, a total of 19, the lowest recorded in this City to date. Twelve of the cases had had no immunisation against the disease and of these 2 fatal

cases were recorded. The 30 notifications of meningococcal meningitis represented a considerable increase and is higher than the number recorded for any year since 1957. In December of 1964 Tetanus was made a notifiable disease and during 1965, 10 cases of tetanus neonatorum and 18 other cases were notified. Eight deaths occurred.

Once again it is regrettable to have to report that pulmonary tuberculosis remained the major single public health problem confronting the City; the number of notifications showing an increase of 100 over the total of 1,966 reflected in my 1964 report. The increase occurred only in the Asiatic and Bantu communities. Certain categories of Bantu male work seekers are now being screened at the Durban Chest Clinic and it was found that approximately 1% of those referred had the disease in an active form. In July of 1965 the Charles James S.A.N.T.A. Centre with a bed capacity of 280 patients, opened in the Umlazi Reserve, some 10 miles south of Durban. At the year's end 90 City cases were occupying beds in this settlement.

The State Health Department, recognising the need for adequate sampling of foodstuffs, increased the free quota for use in terms of the Food, Drugs and Disinfectants Act, from 352 to 700 samples, added to which the City Council has a private contract for the analysis of 300 samples. Following unfavourable climatic conditions in Durban's milkshed and to avoid rationing of milk in the City a total of 56,489 gallons of milk from unregistered sources was introduced under permission solely for the manufacture of sterilized milk, thus releasing some 2,500 gallons of milk daily for the fresh milk trade. All milk, cream and icecream sold in the City, is, of course pasteurised. Regular tests for antibiotics were performed on samples of the City's supplies.

Biological control of mosquitoes continued to prove most satisfactory whilst control of other pests, including bugs in the large Indian Township of Chatsworth, also expanded.

A beginning was made on the implementation of the Council's 15-year programme of providing water-borne sewerage in unsewered areas of the City and the immensity of this vital task can be gauged by a glance at Chapter 13 of this report. It is to be hoped that work will proceed unhindered on this project which is the most pressing of Durban's needs in environmental health. Atmospheric pollution control continued, particularly over the residential area of the Old Borough which is a smokeless zone. This Department assisted wherever possible in the prevention of smoke, dust and odour emission by representation on various sub-committees and through its Offensive Trade Regulations.

Although steady progress was made in housing programmes there remained a large backlog in Indian housing requirements, particularly of the sub-economic type; housing requirements for the Coloured community continued to present a serious problem, whilst amongst the White group the need for more accommodation for the ordinary middle income group was apparent. Bantu housing advanced during the year, both at kwaMashu and at the out-of-Borough Umlazi Bantu Township, which latter is being developed by the City Council on behalf of the South African Bantu Trust.

The staff position remained reasonably satisfactory and although it was possible to fill the post of

Assistant Medical Officer of Health created in 1963, and a new Clinical Medical Officer's post, the position in regard to clinical medical officers, both whole and part-time gave rise to some anxiety. Three Indian Nurses in this Department took and passed the Non-European Health Visitor's course held at Kimberley. Future prospects of recruiting Indian Health Visitors remain bleak.

A special review of the activities of all Municipal Departments was required by the City Council and flowing from this directive a number of recommendations were put forward by the Deputy City Medical Officer of Health and the Principal Assistant, who undertook the review in this Department. Their recommendations had, in a large measure, been implemented by the year's end, to the benefit of the Department. During the financial year ending July 1965 the revenue expenditure in the Department amounted to nearly 1.141 million Rand and the income to R519,131, the Department therefore incurring a net expenditure of R621,862 which, in view of the population of Durban, is considered very reasonable.

My thanks are due to the Mayor and City Councillors for their support in public health matters and in particular to the Chairman and Members of the Public Health Committee for their encouragement and support at all times. The ready help and consideration afforded me by the other Heads of Departments and their staffs is acknowledged with appreciation.

To the members of the Press and the South African Broadcasting Corporation I am deeply grateful for their invariable co-operation in bringing to the notice of citizens matters of concern in the public health sphere and acting as a most valuable link between my Department and the public.

In conclusion I must pay a special tribute to each and every member of the City Health Department's staff for their loyalty and team spirit, coupled with a consistently high standard of work.

I have the honour to be,

Ladies and Gentlemen,


Your obedient Servant,

C.R. MACKENZIE.

M.B., B.Ch., D.P.H., D.T.M. & H.,
F.R.S.H.

Honorary Senior Lecturer in Public
Health Administration, University
of Natal.

CITY MEDICAL OFFICER OF HEALTH.



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I. HISTORICAL AND GEOGRAPHICAL DATA

(a) Durban, now in its 112th year since proclamation as a borough, continues to expand rapidly as a major commercial and industrial City of the Republic although maintaining its popularity as a holiday resort. It is the country's principal seaport and its rapid expansion as such has necessitated considerable enlargement of port facilities which are at present being carried out. The harbour area itself is in excess of 6 square miles.

(b) The principal industrial centre is situated to the south where many modern factories with well laid out gardens and provided with all the necessary services (water, power, etc.) are functioning. A new undertaking is the establishment of large engineering firms at the bayhead for shipbuilding.

(c) Commerce has also shown outstanding growth and the central shopping area now comprises modern multi-storeyed buildings which have replaced many small structures that have stood for decades and were not in keeping with the aesthetic appearance of the commercial centre.

Extensive development of the beachfront holiday environs has taken place, particularly the erection of numbers of large flatted buildings. This has resulted in a further development of food handling businesses to cater for both the vast crowd of holiday makers and residents of this popular playground.

(d) Durban's non-European population, particularly the Bantu, because of their economic status and education generally present a particularly difficult public health problem which is evidenced by the morbidity state amongst this group.

(e) The government of the municipality is vested in 30 Councillors representing 15 wards in the City whilst the various executive functions are entrusted to 22 Departments between whom close liaison exists to ensure maximum efficiency.

(f) To illustrate the extraordinary development which has taken place in this City, included in this report is an aerial photograph reproduced by kind permission of the "Daily News".

Area:

The area of the City covers 9¹/₄ square miles and includes the two major townships of Chatsworth for Indians and kwaMashu for the Bantu. In the case of Chatsworth the residents are, for the time being, dependent on buses to convey them some 12 miles to the centre of the City, whilst the Bantu now enjoy a fast electric train service for a similar distance.

Valuation: (1964 figures in parenthesis)

	<u>Land</u>	<u>Buildings</u>
Old Borough and Added Areas (including Chatsworth)		
Rateable Values	R184,207,050 (R146,657,430)	R332,088,990 (R275,367,460)
Total Values (excluding kwaMashu)	R227,479,480 (R181,340,930)	R387,552,460 (R319,465,760)

<u>Rates</u> (including Water Rate)	Land:	3.84	cents	in	Rand
	Buildings:	1.28	"	"	"
Agricultural (excluding	Land:	1.74	"	"	"
Water Rate of 0.36 cents	Buildings:	0.36	"	"	"
in Rand)					

North Eastern Extremity of Bluff (incorporated 1962)

<u>Rateable Values</u> (Total	Land:	R1,730,870
Values in brackets)		(R3,029,090)
	Buildings:	R4,045,700
		(R4,523,170)

Rates on Land and Buildings: 80% of the General Rate applicable to the City, plus the water rate.

Meteorological Data

Rain fell on 138 days during the year, a total of 39.24 inches being recorded compared with 125 days and 37.85 inches respectively for the previous year.

The average number of hours of sunshine per day was 6.7 as against 6.6 in 1963.

Full data is reflected in the table overleaf, this information being provided by courtesy of the Weather Office, Louis Botha Airport.

During 1965 the Meteorological Office were obliged to carry out their radiosonde balloon flights in the afternoon due to lack of staff for the normal early morning ascents. By afternoon the ground inversions had broken and the following table shows the number of days each month on which ground inversions were detected compared with figures indicative of ground inversions recorded in previous years when early ascents were made. It will be seen that when early morning ascents were made during September and October, 1965, a number of ground inversions which favour smog formation were detected but the remaining data cannot be compared with results obtained in previous years.

<u>1965</u> <u>Month</u>	<u>Time of</u> <u>Ascent</u>	<u>No. of days when</u> <u>ground inversions</u> <u>detected (p.m.)</u>	<u>Typical No. of days</u> <u>when ground inver-</u> <u>sions exist (a.m.)</u>
January	13.00 hrs.	0	3
February	13.00 hrs.	0	5
March	13.30 hrs.	1	8
April	13.30 hrs.	0	14
May	13.30 hrs.	0	21
June	13.30 hrs.	1	25
July	13.30 hrs.	0	25
August	13.30 hrs.	0	20
September	05.00 hrs.	6	13
October	05.00 hrs.	11	9
November	14.00 hrs.	0	6
December	14.00 hrs.	0	4

METEOROLOGICAL DATA

1965 Month	24 hours Shade Temperature (°C)			Relative Humidity		Barometer Readings (inches)			Rainfall				Sunlight
	Maximum	Minimum	Mean	Minimum	Average	Maximum	Minimum	Mean	m.m.	Inches	No. of days on which rain fell	Highest Fall (m.m.)	Average Hours of Sunshine per day
January	27.5	19.9	23.7	66	82	29.98	29.83	29.90	88.6	3.49	16	37.1	6.09
February	28.5	20.3	24.2	61	80	29.94	29.78	29.85	114.9	4.52	12	65.1	7.73
March	28.3	18.7	23.4	73	77	30.08	29.90	29.99	31.3	1.23	10	13.4	8.36
April	25.8	16.3	20.7	50	76	30.12	29.94	30.03	18.9	.74	9	5.1	7.01
May	24.3	11.4	17.7	49	75	30.20	30.00	30.10	113.7	4.48	8	79.0	6.74
June	20.9	8.6	14.7	44	71	30.28	30.15	30.21	128.5	5.06	6	53.0	7.15
July	22.2	9.3	15.7	49	77	30.26	30.11	30.18	44.4	1.75	9	25.0	7.74
August	23.0	12.0	17.6	59	80	30.22	30.04	30.13	74.3	2.93	6	43.8	7.16
September	23.8	14.6	19.2	59	79	30.21	30.03	30.12	90.2	3.55	10	39.7	6.47
October	22.9	14.4	18.4	62	78	30.19	29.96	30.07	90.6	3.57	17	39.3	6.19
November	23.7	17.2	20.1	65	83	30.14	29.95	30.04	128.2	5.05	19	28.4	3.31
December	25.9	18.2	21.9	60	79	30.01	29.80	29.90	72.9	2.87	16	24.4	6.44
Total for the year:									996.5	39.24	138	79.0	6.70

II. VITAL STATISTICS

Population (Estimated):

Europeans	178,500	(27.20%)
Coloureds	29,000	(4.42%)
Bantu	198,191	(30.20%)
Asiatics	250,531	(38.18%)
All Races	656,222	

Births: 1965

Race	Legitimate				Illegitimate				Totals			
	M	F	Total	1964	M	F	Total	1964	M	F	Total	1964
European	1534	1500	3034	3192	71	72	143	141	1605	1572	3177	3333
Coloured	532	539	1071	1016	151	175	326	309	683	714	1397	1325
Bantu	2642	2780	5422	5837	1819	1761	3580	3305	4461	4541	9002	9142
Asiatic	4224	4337	8561	8025	137	119	256	158	4361	4456	8817	8183
Totals	8932	9156	18088	18070	2178	2127	4305	3913	11110	11283	22393	21983

Crude Birth Rates: (No. of births per 1000 population - 1964 in parenthesis)

European	17.80	(19.00)
Coloured	48.17	(47.05)
Bantu	45.42	(46.80)
Asiatic	35.19	(33.54)
All Races	34.12	(34.19)

The continued decline of the European birth rate is to be particularly noted and it is significant that the Durban rate is much lower than the European rate for the Republic as a whole which is 23 per 1000 population. The higher rates for the non-European are in keeping with the less developed and industrialised populations throughout the world.

Obviously the increasing birth rates amongst the non-White communities of Durban have necessitated a progressive re-orientation of health services in respect of each racial group.

Stillbirths: (Rates per 1000 live births - 1964 figures in parenthesis)

	<u>Number</u>		<u>Rates</u>	
European	22	(36)	6.97	(10.92)
Coloured	30	(21)	21.95	(16.10)
Bantu	251	(251)	28.68	(28.23)
Asiatic	162	(202)	18.72	(25.31)
All Races	465	(510)	21.21	(23.75)

The drop in European stillbirths is in keeping with the 1962 and 1963 figures and perhaps this will be the pattern for the future. If so, this will be an improvement on the average rate of 10 over the past decade.

Illegitimate Births: (As a percentage of total births - 1964 figures in parenthesis)

European	4.50	(4.23)
Coloured	23.34	(23.32)
Bantu	38.66	(36.15)
Asiatic	2.90	(1.93)
All Races	19.22	(17.80)

The upward trend of illegitimacy amongst the European community apparently continues but this is due to the decrease in total births in this race and not a pronounced degree of illegitimacy. The other races show little change from the situation pertaining in previous years.

Deaths:

Race	Total Deaths				Crude Death Rate per 1000 population	
	Male	Female	Total	(1964)	1965	(1964)
European	1065	821	1886	1739	10.57	9.91
Coloured	159	123	282	242	9.72	8.59
Bantu	1648	1122	2770	2300	13.93	11.77
Asiatic	1066	766	1832	1781	7.31	7.30
All Races	3938	2832	6770	6062	10.32	9.43

The pattern is similar to the previous year. However, it appears that Durban's Coloured and Bantu communities are reasonably catered for in respect of personal and environmental health services as their death rates are only half those for the country as a whole.

The three main causes of death (all races) were as follows:

Cause of Death	Percentage of total deaths				
	E	C	B	A	All Races
a. Heart and circulatory system	35.42	11.70	4.18	20.74	17.68
b. Pneumonias	9.38	12.41	9.42	14.63	10.94
c. Neoplasms	17.23	8.17	4.11	4.53	8.05

It is interesting to note that in 1905, the three principal causes of death amongst the European community were enteritis, pulmonary tuberculosis and cancer.

Infant Mortality: (Deaths of Infants under the age of 1 year and rate per 1000 live births - 1964 figures in parenthesis).

	Number of Deaths		Rate	
European	82	(80)	25.99	(24.64)
Coloured	64	(58)	46.82	(44.48)
Bantu	1021	(930)	116.67	(104.60)
Asiatic	424	(435)	48.87	(54.50)
All Races	1591	(1503)	72.56	(69.99)

The rapid fall in the non-European rates in the post war period now appears to be levelling out, notwithstanding the fact that the Coloured and Asiatic rates are still double that of the European, and Bantu more than four times as high.

Maternal Deaths: (Deaths from Causes related to Childbirth and rate per 1000 live births - 1964 figures in parenthesis)

	Number of Deaths		Rate	
European	3	(1)	0.95	(0.30)
Coloured	3	(-)	2.19	(-)
Bantu	18	(8)	2.06	(0.90)
Asiatic	9	(3)	1.04	(0.38)
All Races	33	(12)	1.50	(0.56)

The trend is in keeping with the pattern over many years.

Principal Causes of Death 1965: (1964 figures in brackets)

(a) In respect of all deaths

Cause of Death	Detailed List Numbers	Europeans		Coloureds		Bantu		Asiatics		All Races	
		No.	%	No.	%	No.	%	No.	%	No.	%
Tuberculosis (All forms)	001-009	13 (9)	.69 (.51)	17 (8)	6.03 (3.31)	154 (137)	5.56 (5.96)	36 (35)	1.97 (1.97)	220 (189)	3.25 (3.12)
Neoplasms	140-239	325 (265)	17.23 (15.24)	23 (20)	8.17 (8.26)	114 (89)	4.11 (3.87)	83 (68)	4.53 (3.82)	545 (442)	8.05 (7.29)
Vascular lesions of C.N.S.	330-334	194 (184)	10.29 (10.58)	17 (12)	6.03 (4.96)	78 (70)	2.81 (3.04)	180 (173)	9.83 (9.71)	469 (439)	6.93 (7.24)
Heart and Circulatory System	400-468	668 (631)	35.42 (36.29)	33 (45)	11.70 (18.60)	116 (123)	4.18 (5.35)	380 (405)	20.74 (22.74)	1197 (1204)	17.68 (19.86)
Pneumonias	490-493	177 (138)	9.38 (7.94)	35 (25)	12.41 (10.33)	261 (225)	9.42 (9.78)	268 (306)	14.63 (17.18)	741 (694)	10.94 (11.45)
Enteritis and Diarrhoea	571-572	15 (13)	.80 (.75)	14 (14)	4.96 (5.79)	275 (253)	9.92 (11.00)	140 (110)	7.64 (6.18)	444 (390)	6.56 (6.43)
Road Accidents	810-835	41 (47)	2.17 (2.70)	12 (11)	4.26 (4.55)	74 (64)	2.67 (2.78)	51 (26)	2.78 (1.46)	178 (148)	2.63 (2.44)
Ill-defined and Unknown	780-793, 795	108 (91)	5.73 (5.23)	35 (30)	12.41 (12.40)	711 (553)	25.66 (24.04)	137 (100)	7.48 (5.61)	991 (774)	14.64 (12.77)

(b) In respect of Infant Deaths

Causes of Death	Detailed List Numbers	Europeans		Coloureds		Bantu		Asiatics		All Races	
		No.	%	No.	%	No.	%	No.	%	No.	%
Pneumonias	490-493	6 (3)	7.32 (3.75)	9 (9)	14.06 (15.52)	136 (111)	13.32 (11.94)	69 (88)	16.27 (20.23)	220 (211)	13.83 (14.04)
Enteritis and Diarrhoea	571-572	13 (4)	15.85 (5.00)	13 (10)	20.31 (17.24)	211 (202)	20.67 (21.72)	107 (84)	25.24 (19.31)	344 (300)	21.62 (19.96)
Congenital Malformations	750-759	9 (14)	10.98 (17.50)	1 (2)	1.56 (3.45)	17 (16)	1.67 (1.72)	21 (19)	4.95 (4.37)	48 (51)	3.02 (3.39)
Post-Natal Asphyxia	762	5 (4)	6.10 (5.00)	6 (3)	9.38 (5.17)	32 (21)	3.13 (2.26)	15 (17)	3.54 (3.91)	58 (45)	3.65 (2.99)
Infections of Newborn	763-768	3 (3)	3.66 (3.75)	2 (4)	3.13 (6.90)	40 (44)	3.92 (4.73)	38 (46)	8.96 (10.57)	83 (97)	5.22 (6.45)
Ill-defined and Prematurity	773-776	31 (34)	37.80 (42.50)	14 (19)	21.88 (32.76)	171 (166)	16.75 (17.85)	115 (97)	27.12 (22.28)	331 (316)	20.80 (21.02)
Ill-defined and Unknown	780-793, 795	3 (2)	3.66 (2.50)	9 (4)	14.06 (6.90)	253 (232)	24.78 (24.95)	12 (22)	2.83 (5.06)	277 (260)	17.41 (17.30)

III. INFECTIOUS DISEASES

INTRODUCTION

There were no local cases of formidable epidemic disease notified during the year. Visits were nevertheless made to various patients reported to this Department as possibly suffering from smallpox but, fortunately, in all instances this disease could be excluded. Such reports came not only from medical practitioners but also from members of the public, and although it is often apparent before investigation that the case in question is not one of smallpox, investigations are always completed. The awareness of the public in this regard is appreciated and encouraged.

It is of interest that during 1965 there was an increase of between 3,000 and 4,000 cases of smallpox in Africa compared to 1964. The total number of cases notified in this Continent was approximately 16,000 and were essentially confined to eight countries, namely: Burundi, Tanzania, Uganda, Zambia, Democratic Republic of the Congo, Mali, Niger and Nigeria.

In regard to other formidable epidemic diseases occurring throughout the world the incidences in the various countries are constantly noted. Yellow Fever showed a tendency to spread towards the south in certain South American states and in Africa a serious epidemic occurred in Senegal where the need for strengthened epidemiological surveillance was stressed. Plague showed an increased tendency of spread of the disease to man in certain areas of the world, particularly South America, and a need for systematic study and surveillance of the natural foci of rodent plague was emphasized. Cholera although still confined to the East passed new boundaries progressing towards the West during 1965.

With the ever increasing international sea traffic and the importance of local harbours and especially Durban, it is necessary to bear in mind constantly the global epidemiology of these diseases.

NOTIFICATIONS

Set out below is a table showing the number and racial distribution of the confirmed local cases of notifiable infectious diseases notified to this Department during the year 1965.

Disease	E	C	B	A	Total	Attack Rate per 1000 Population
Poliomyelitis	-	-	9	-	9	.0137
Typhoid	5	1	23	10	39	.0594
Diphtheria	1	2	13	3	19	.0290
Encephalitis	9	-	3	2	14	.0213
Scarlet Fever	52	1	-	-	53	.0808
Leprosy	-	-	4	-	4	.0061
G. C. O.	1	-	7	10	18	.0274
Puerperal Sepsis	-	-	12	4	16	.0244
Meningococcal Meningitis	7	2	16	5	30	.0457
Tetanus	-	4	15	9	28	.0427
Trachoma	26	-	1	1	28	.0427
Ophthalmia Neon- atorum	-	-	5	-	5	.0076
Brucellosis	1	-	-	-	1	.0015
Erysipelas	2	-	-	-	2	.0030

While diphtheria and leprosy notifications have been fewer than during the previous year, there has been an increase in respect of notifications of gonococcal ophthalmia, puerperal sepsis, meningococcal meningitis and trachoma. The incidence of the other notifiable diseases has remained very much on a par with the previous year.

Tetanus appears on the list for the first time as this disease was made notifiable in December 1964, and during 1965 there were 28 cases notified, including tetanus neonatorum.

Typhoid Fever

The table overleaf sets out the notifications, deaths, and appropriate rates for Durban since 1940. Thirty-nine cases were notified during 1965 which is 4 less than the previous year and compares favourably with the number of notifications during the previous 3 years. No deaths were recorded.

The incidence of this disease was highest in the summer months and it was mainly adults that were affected, the most common age group being 21 - 35 years.

Two of the European cases were brothers and although extensive investigations were carried out the source of the infection was not established. It was suspected that the Bantu servant girl who had an illness suggestive of typhoid fever some three weeks previously, was the cause of the infection, but stool and urine tests were persistently negative.

One of the Asiatic cases was employed as a medical technologist in a local hospital and in the course of his duties handled blood, stool and urine specimens. It was considered that this was probably the source of infection in his case. A similar case of a medical technologist being infected was reported in the previous year's annual report, and this recent case mentioned above, once again emphasises the importance of correct technique and hygiene among persons working in pathological laboratories.

Routine investigations carried out with each notification led to the discovery of two typhoid carriers, one being a Bantu and one an Asiatic. They were both faecal carriers and were admitted to hospital for special treatment. Such cases are followed up once they are discharged from hospital and are tested at regular intervals in case they again become carriers. In both the above cases there has been no reversion to the *S. typhi*-carrier state since treatment. In the case of an adult Bantu female, however, who had been discovered in 1963 and apparently successfully medically treated, persistent follow up revealed a reversion to the faecal carrier state. After much persuasion she consented to cholecystectomy and this revealed a diseased gall bladder with stones, and from which *S. typhi* were cultured. Since the operation her stools have remained negative.

While the Bantu township of kwaMashu accounted for 11 cases of typhoid fever during the year 1965, one Asiatic case was reported from the Merebank Township and one case from the Umhlathuzana Indian Township.

Diphtheria

The table overleaf sets out the notifications, deaths and appropriate rates for Durban since 1940. Once again there has been a decrease in the number of notifications,

TYPHOID : NOTIFICATIONS AND DEATHS 1940 TO 1965

(NOTIFICATION RATE PER 1,000 POPULATION : MORTALITY RATE PER CENT OF TOTAL NOTIFICATIONS)

Year	EUROPEAN			COLOURED			BANTU			ASIATIC			ALL RACES							
	Notifications		Deaths	Notifications		Deaths	Notifications		Deaths	Notifications		Deaths	Notifications		Deaths					
	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate				
1940	52	.56	5	9.62	4	.49	—	—	42	.60	12	28.57	23	.26	7	30.43	121	.47	24	19.83
1941	24	.26	2	8.33	1	.12	—	—	70	.98	23	32.86	15	.17	6	40.00	110	.48	31	28.18
1942	123	1.16	10	8.13	13	1.53	1	7.70	164	2.21	39	23.78	22	.23	10	45.45	322	1.15	60	18.63
1943	68	.64	6	8.82	10	1.17	2	20.00	156	2.13	34	21.79	71	.75	15	21.12	305	1.09	57	18.69
1944	37	.34	6	16.21	3	.34	—	—	108	1.36	37	34.26	46	.47	11	23.91	194	.69	54	27.83
1945	17	.15	2	11.76	5	.58	1	20.00	62	.86	19	30.65	28	.28	6	21.43	112	.39	28	25.00
1946	18	.14	—	—	7	.68	—	—	113	1.04	38	33.63	39	.34	9	23.08	177	.49	47	26.55
1947	14	.11	—	—	21	1.98	2	9.52	108	.99	29	26.85	67	.57	10	14.93	210	.57	41	19.52
1948	7	.05	1	14.29	7	.64	—	—	57	.52	9	15.79	24	.20	4	16.67	95	.26	14	14.73
1949	12	.09	—	—	5	.44	—	—	21	.19	8	38.10	10	.08	3	30.00	48	.13	11	22.92
1950	16	.12	—	—	2	.16	1	50.00	36	.28	15	41.67	40	.31	2	5.00	94	.24	18	19.15
1951	7	.05	—	—	1	.07	—	—	66	.49	24	36.36	24	.17	6	25.00	98	.23	30	30.61
1952	9	.07	—	—	1	.06	—	—	54	.38	10	18.52	37	.25	2	5.41	101	.23	12	11.88
1953	4	.03	—	—	—	—	—	—	53	.36	11	20.75	16	.10	—	—	73	.16	11	15.07
1954	5	.04	—	—	4	.22	—	—	74	.48	9	12.16	9	.06	2	22.22	92	.19	11	11.96
1955	8	.05	—	—	3	.16	—	—	73	.44	4	5.48	16	.10	—	—	100	.20	4	4.00
1956	5	.03	—	—	1	.05	—	—	52	.30	3	5.77	9	.05	—	—	67	.13	3	4.48
1957	6	.04	1	16.66	1	.04	—	—	110	.61	6	5.45	5	.03	1	20.00	122	.22	8	6.56
1958	7	.04	—	—	5	.19	—	—	246	1.32	22	8.13	20	.09	2	5.00	278	.49	24	8.63
1959	6	.04	—	—	1	.04	1	100.00	280	1.45	21	7.50	16	.07	2	12.49	303	.51	24	7.92
1960	8	.05	1	12.50	4	.16	—	—	71	.39	3	4.22	7	.03	—	—	90	.16	4	4.44
1961	2	.01	—	—	2	.08	—	—	39	.21	2	5.13	16	.07	1	6.25	59	.10	3	5.08
1962	5	.03	—	—	—	—	—	—	25	.13	—	—	11	.05	—	—	41	.07	—	—
1963	1	.01	—	—	3	.11	—	—	25	.13	1	4.00	6	.03	—	—	35	.06	1	2.86
1964	2	.01	—	—	1	.04	—	—	30	.15	3	10.00	10	.04	—	—	43	.07	3	6.98
1965	5	.03	—	—	1	.03	—	—	23	.12	—	—	10	.04	—	—	39	.06	—	—

DIPHTHERIA : NOTIFICATIONS AND DEATHS : 1940 to 1965																				
(Notification Rate per 1,000 Population : Mortality Rate per cent. of Total Notifications)																				
EUROPEAN						COLOURED				BANTU				ASIATIC				ALL RACES		
Year	Notifications		Deaths		Notifications		Deaths		Notifications		Deaths		Notifications		Deaths		Notifications		Deaths	
	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate
1940	194	2.10	3	1.55	21	2.60	—	0.00	16	1.23	2	12.50	23	0.26	1	4.35	254	0.98	6	2.36
1	228	2.44	5	2.19	18	2.18	—	0.00	42	0.59	7	16.67	8	0.09	1	12.50	296	1.13	13	4.39
2	262	2.48	2	0.76	26	3.07	1	3.85	63	0.85	4	6.35	14	0.15	—	0.00	365	1.30	7	1.92
3	295	2.76	9	3.05	24	2.80	2	8.33	44	0.60	2	4.55	15	0.16	3	20.00	378	1.34	16	4.23
4	416	3.84	7	1.68	74	8.43	—	0.00	73	1.01	16	21.92	36	0.37	2	5.56	599	2.09	25	4.17
5	255	2.33	6	2.35	36	4.01	1	2.78	116	1.61	9	7.76	37	0.37	—	0.00	444	1.53	16	3.60
6	154	1.23	7	4.55	17	1.66	1	5.88	64	0.59	7	10.94	38	0.33	10	26.32	273	0.76	25	9.15
7	156	1.23	4	2.56	24	2.26	2	8.33	110	1.01	9	8.18	46	0.39	7	15.22	336	0.92	22	6.55
8	73	0.57	1	1.37	8	0.73	—	0.00	93	0.85	12	12.90	18	0.15	5	27.78	192	0.52	18	9.37
9	95	0.73	—	0.00	21	1.85	2	9.52	66	0.60	12	18.18	39	0.32	6	15.38	221	0.59	20	9.05
1950	145	1.10	1	0.69	34	2.65	2	5.88	124	0.97	18	14.52	58	0.45	7	12.07	361	0.90	28	7.75
1	58	0.45	2	3.45	14	0.94	2	14.29	150	1.12	24	16.00	47	0.32	11	28.40	269	0.63	39	14.50
2	50	0.38	4	8.00	7	0.45	—	0.00	103	0.73	19	18.45	51	0.34	11	21.57	211	0.48	34	16.11
3	39	0.28	2	5.13	26	1.51	5	19.23	76	0.51	19	25.00	49	0.32	11	22.45	190	0.41	37	19.47
4	25	0.17	1	4.00	8	0.44	—	0.00	48	0.30	6	12.50	19	0.12	—	0.00	100	0.21	7	7.00
5	75	0.50	1	1.33	34	1.82	2	5.88	102	0.61	16	15.69	69	0.42	15	21.74	280	0.56	34	12.14
6	70	0.46	5	7.14	13	0.67	1	7.69	43	0.24	17	39.53	69	0.42	12	17.39	195	0.37	35	17.95
7	38	0.25	4	10.53	5	0.21	—	0.00	37	0.21	11	29.73	31	0.16	3	9.68	111	0.20	18	16.21
8	38	0.25	3	7.89	6	0.24	—	0.00	57	0.31	13	22.81	70	0.34	15	21.43	171	0.30	31	18.13
9	24	0.15	—	0.00	12	0.46	1	8.33	55	0.29	4	7.27	24	0.11	5	20.83	115	0.19	10	8.69
1960	9	0.06	1	11.11	7	0.28	—	—	56	0.31	6	10.71	22	0.10	4	18.17	94	0.16	11	11.70
1	8	0.05	—	0.00	4	0.16	—	0.00	63	0.34	11	17.46	28	0.12	3	10.71	103	0.17	14	13.59
2	10	0.06	1	10.00	5	0.19	—	0.00	46	0.24	7	15.22	9	0.04	2	22.22	70	0.11	10	14.29
3	3	0.02	—	—	6	0.22	1	16.67	17	0.09	1	5.88	12	0.05	3	25.00	38	0.06	5	13.16
4	5	0.03	—	—	2	0.07	—	—	15	0.08	2	13.33	11	0.05	5	45.45	33	0.05	7	21.21
1965	1	0.006	—	—	2	0.07	—	—	13	0.07	2	15.38	3	0.01	—	—	19	0.03	2	10.53

and the total of 19 for the year 1965 is the lowest recorded. Of the 19 cases notified, 13 were Bantu, 3 were Asiatics, 2 were Coloureds and 1 a European. Two deaths were recorded, both being Bantu who had not received any previous immunisation against the disease.

Of the 19 notifications 16 were clinical cases and 3 were carriers. The immunisation state of these cases is depicted hereunder :-

	16 Clinical cases	3 Carriers
3 doses Vaccine	2	-
2 doses Vaccine	-	-
1 dose Vaccine	1	-
No previous immunisation	12	1
Immunisation state not known	1	2

Eleven of the cases were under 5 years of age, 3 were in the age group 5 - 9 years, 3 in the age group 10 - 14 years and the remaining two were in the age group 20 - 24 years.

The only European case (aged 24 years) had spent four months in a local hospital for surgical treatment to his lower jaw. A swab taken from a chronic lesion on the leg which was apparently due to non-healing of a donor skin graft, gave a positive result for virulent *C. diphtheriae*.

An epidemiological survey embracing throat and ear swabs, carried out during the year at a holiday home for Coloured school children who come to Durban from the Transvaal, revealed 6 throat swabs positive for virulent *C. diphtheriae*. These children were admitted to a local hospital as carriers. In four instances these carriers were discovered on their arrival in Durban, but in two instances, while swabs were negative on arrival in Durban, throat swabs taken two months later just before departure for the Transvaal, were positive. It is possible that the throat swab taken on arrival missed the diphtheria organisms in the throat, or otherwise these children developed the carrier state while being herded together at this holiday school. They were accordingly regarded as local cases.

Poliomyelitis

The following table sets out notifications in racial groups for the City since 1955.

Race	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965
European	65	82	113	13	23	9	3	-	1	-	-
Coloured	6	18	7	1	-	1	3	-	-	-	-
Bantu	7	32	27	7	21	29	21	4	20	7	9
Asiatic	4	26	16	6	7	8	2	-	5	1	-
Totals	82	158	163	27	51	47	29	4	26	8	9

It will be noted from the above table that all 9 notifications for the year 1965 were in respect of Bantu children. These cases varied in age from 8 months to 3 years. One death was recorded in a baby 8 months old, but this death was due to measles and pneumonia which the child developed while convalescing from poliomyelitis. All these cases were notified during the last 3 months of 1965. During this

period there was a distinct upsurge in poliomyelitis incidence, particularly in the surrounding areas of Durban.

Three of the 9 cases had had previous immunisation, two having had three doses, and one having had one dose of vaccine. The fully immunised children developed the disease in a mild form.

Virus studies are routinely performed on all clinical cases of poliomyelitis and Type I poliovirus was isolated from stools of 5 of the above 9 cases but no virus was isolated in the remaining 4. Two of the 5 cases had Coxsackie A virus in their stools, in addition to the poliovirus.

Trachoma

The table below depicts the incidence of this disease in Durban since 1940. The 28 notifications received for 1965 show that the trend of 1963 and 1964 continues. It is interesting to see that of the 28 cases notified, 26 were Europeans.

Trachoma Notifications since 1940

Year	European	Coloured	Bantu	Asiatic	Total
1940	-	-	2	-	3
1941	-	-	-	2	2
1942	-	-	1	-	1
1943	-	-	-	1	1
1944	-	-	-	-	-
1945	-	1	-	-	1
1946	-	-	-	-	-
1947	-	-	-	-	-
1948	-	-	-	-	-
1949	-	-	1	-	1
1950	-	-	-	-	-
1951	-	-	-	1	1
1952	-	-	-	-	-
1953	-	-	-	-	-
1954	-	-	-	-	-
1955	-	-	-	-	-
1956	-	-	1	-	1
1957	-	-	-	-	-
1958	-	-	-	-	-
1959	-	-	-	-	-
1960	-	-	-	-	-
1961	-	-	-	-	-
1962	-	-	3	2	5
1963	2	1	27	2	32
1964	-	6	1	8	15
1965	26	-	1	1	28

In all these instances the clinical diagnosis was confirmed by isolation of Tric virus at the South African Institute for Medical Research. No particular surveys were carried out amongst the non-European groups and this would account for the few notifications in these race groups. The European notifications have been in respect of persons attending private ophthalmologists and the fact that many of these cases concern people in the upper income group and from homes where the hygiene is exceedingly good, raises doubts as to just how prevalent this disease is, not only here in Durban or for that matter in Natal, but in other parts of the Republic where it has not previously been diagnosed with any frequency.

The fact that virus isolations by South African Institute for Medical Research have confirmed these cases, cannot raise any doubt about the diagnosis, but it should be stated that in all instances the disease has been of a mild nature.

These findings indicate that the usual concept of the incidence and morbidity of this disease requires readjustment in this area at least.

Encephalitis

There were the same number of notifications during 1965 as there were for 1964, namely 14 cases. The following table sets out the aetiology of these cases and also indicates the racial incidence.

Aetiology	E	B	A	Total
Virus Encephalitis	5	1	2	8
Measles Encephalitis	2	1	-	3
Mumps Encephalitis	2	-	-	2
Whooping Cough Encephalitis	-	1	-	1
Total	9	3	2	14

Among these 14 notifications 4 were in respect of deaths; two being Asiatic aged 2 years and 50 years who died from virus encephalitis, while the other two deaths comprised a European of 4 years and a Bantu of one year, both of whom died from measles encephalitis. No viruses were isolated from any of the virus encephalitides.

Meningococcal Meningitis

The 30 notifications for 1965 is very much higher than the total of 11 cases for 1964. It was noticeable that there was a marked increase in the incidence of this disease during the Spring months of 1965. There were 3 deaths: one European, one Coloured and one Bantu.

The following table sets out the notifications since 1955 with the deaths in parenthesis since 1961.

Year	E		C		B		A		Total
1955	7		-		4		3		14
1956	5		3		22		3		33
1957	5		1		6		6		18
1958	6		2		11		4		23
1959	4		2		-		2		8
1960	2		2		2		-		6
1961	1	(-)	-	(-)	4	(-)	1	(1)	6 (1)
1962	2	(-)	-	(-)	3	(-)	-	(-)	5 (-)
1963	2	(-)	-	(-)	1	(1)	1	(-)	4 (1)
1964	5	(-)	1	(-)	3	(1)	2	(2)	11 (3)
1965	7	(1)	2	(1)	16	(2)	5	(-)	30 (4)

Scarlet Fever

There were 53 notifications of this disease during the year, a slight decrease compared to the previous year. Of the 53 cases, 52 were Europeans and one was a Coloured. There were no deaths.

Ten cases were admitted to hospital while the remainder were nursed at home as home conditions were satisfactory for isolation and treatment.

Tetanus

The following table sets out the ages and racial incidence of all the 28 tetanus notifications, ten of which were cases of tetanus neonatorum. There were 8 deaths, and these are recorded in parenthesis.

	E	C	B	A	Total
0 - 30 days	-	-	8 (2)	1 (1)	9 (3)
1 mth. to 5 mths.	-	-	-	1	1
6 mths. to 11 mths.	-	-	-	1	1
1 yr. to 4 yrs.	-	-	-	1	1
5 yrs. to 9 yrs.	-	-	1	2	3
10 yrs. to 19 yrs.	-	2	2 (1)	-	4 (1)
20 yrs. to 29 yrs.	-	1 (1)	1 (1)	1	3 (2)
30 yrs. to 39 yrs.	-	-	2	2	4
40 yrs. and over	-	1 (1)	1 (1)	-	2 (2)
Totals	-	4 (2)	15 (5)	9 (1)	28 (8)

Brucellosis

This notification was in respect of an 8 year old European girl. The probable source of infection was traced to raw milk and cream consumed outside of Durban. The State Veterinary Department investigated the cow herd implicated, and found brucellosis in the herd.

This case once again emphasises the importance of pasteurisation of all fresh milk and cream supplies.

IV. OTHER COMMUNICABLE DISEASES

I. PARASITOLOGY - Amoebiasis Research Unit

The following most interesting and informative report from Professor Elsdon-Dew, the Director of the Amoebiasis Research Unit, Institute for Parasitology, Durban, has kindly been made available for inclusion in this Report.

"Amoebiasis

The Institute has been able to establish that Entamoeba histolytica, the cause of the disease, is usually as harmless as the other amoebae living in the bowel, and that the presence of this parasite does not imply damage to the host. That rapid passage from man to man may play some part in pathogenicity has been shown in a paper dealing with the association of this amoeba with other parasites for which such rapid passage is essential. This possibility is further substantiated by the fall in incidence of disease which has followed the removal of people from Cato Manor to conditions of better hygiene.

Appreciation that the completely harmless Entamoeba hartmanni may easily be mistaken for the potentially dangerous E. histolytica has led to more critical laboratory diagnosis. However, the onus that a parasite encountered is in fact responsible for the patient's symptoms still rests with the attendant physician.

The Institute has developed a blood test which reveals present or past invasion of the tissues by E. histolytica which normally does not destroy host-tissue. Though this test is of some value in diagnosis, it is mainly an epidemiological tool. The preparation of the appropriate antigen is difficult and time-consuming, and research is presently focussed on finding easier methods of production.

Though the long series of drug-trials has resulted in relatively efficient treatment, not only of the acute disease but also for the dreaded complication - liver abscess, study of new forms of therapy continues. Where, at one time, some 3,000 cases were admitted to hospital every year by far the majority are now treated as out-patients and mortality is now practically confined to those cases which arrive moribund.

Bilharzia

Though the activities of the C.S.I.R. Bilharzia Research Unit are mainly concentrated in the Transvaal, the Institute in Durban has been able to make some contributions, particularly in the clinico-pathological field. Though incidence of these parasites is by no means even (one school having shown 80-90% infected), the overall incidence in local Africans is of the order of 30%. There is however surprisingly little post-mortem manifestation of the disease, and it would appear that the majority of those harbouring these worms have but little after effects. Nevertheless intensive study of cases shows that in the acute phase there is damage to the ureter and to the liver. Though this

apparently resolves, there is a horrible example as close as Lourenco Marques, where post-mortem damage is considerable. It is obvious, in view of the numerous water conservation schemes, and the use of these for water sports, that study must be accelerated. As most extant methods of treatment are not without danger, and are impracticable for field use, there is need for an assessment of the position. If and when funds become available for this specific purpose - the Institute could play a greater part in the fight against what may well prove a limiting factor in the development of those areas freed from malaria.

Cysticercosis

As the Institute was using the tape-worm as a "model" for sophisticated study of the antigens for blood tests, it has become involved in this problem. Some assistance has been given by the Meat Control Board and some anomalies are being investigated. However in the process an alarming situation has been uncovered. Epilepsy and other nervous diseases of obscure origin are by no means uncommon in the African, and the Institute has shown that a high proportion of these are due to infection with the larval phase of the pork tape-worm.

Taenia solium. It has also been shown that though the adult is comparatively rare, some five per cent of the local African population give positive results to a blood test for the condition. The problem has thus extended from the animal field to the human. In this study - the Institute would like to acknowledge the enthusiastic co-operation of the staff of the Municipal Abattoir.

Other Parasites

Though the Institute is able to assist with know-how in diseases due to other parasites, it has no specific projects aimed at such parasites as Trichocephalus trichura, which has an incidence of over 90% in local Africans, Ascaris (70-80%) hook-worms (10% in Africans but much higher in agricultural Indians) or the coccidia about which so little is known."

II. MALARIA

Four cases of malaria were discovered in Durban during 1965 but in all instances the infection was imported from outside the Republic of South Africa. These four notifications were made up of two cases of Plasmodium falciparum infection and two cases of Plasmodium malariae infection.

III. RABIES

The whole of the Province of Natal remains a Rabies infected area and the movement of immunised dogs only is allowed into, out of, and within the Province under permits issued by the State Veterinary Department.

There were no human cases of rabies, neither were there any outbreaks of this disease among animals in Durban. The closest case of animal rabies was in the Stanger area which is some 50 miles to the North of this City.

Two Durban children, both European, aged 4 years, were, however, treated in a local hospital following a cat scratch and a mole bite, but treatment was discontinued when the laboratory results proved negative for rabies in both these animals.

Brain material from altogether 15 animals, mainly dogs, was submitted to the Onderstepoort Veterinary Laboratories by the State Veterinarian, Durban, and private local veterinarians. In all instances the tests proved negative for rabies.

It is compulsory for all dogs on reaching the age of six months to be immunised against the disease and approximately 5,000 dogs were immunised in Durban during the year.

This Department has assisted the State Veterinary Department in its Anti-Rabies Immunisation Campaign by making health education personnel available for assisting with propaganda work in the non-European areas.

IV. PSITTACOSIS

A post-mortem conducted on a parrot that had been smuggled into Durban from a ship from South America revealed that the bird had died of psittacosis. The State Veterinarian conducting the post-mortem examination, himself contracted the disease. He was successfully treated.

Possible further spread of psittacosis was prevented by the destruction of the balance of the birds in the consignment. Those persons responsible for the illegal introduction of these birds into Durban were prosecuted and heavy fines were imposed.

V. FOOD POISONING

Five outbreaks of food poisoning occurred in the City during the year. Two of these were minor episodes related to contaminated foodstuffs consumed by individual families in their homes. The epidemiological aspects of three of the more interesting episodes are described below.

1. At a local oil refinery 19 Bantu developed food poisoning some 12 to 20 hours following the midday meal which was served at one of the refinery canteens. The symptoms were chiefly fever and diarrhoea and suggested an infective type of poisoning. The common food factor was gravy and all 19 who developed symptoms were the only workers to be served gravy from one particular utensil. *Salmonella typhi* murium was isolated from the stool of one of the victims as well as from the stool of the chef who had been serving the other Bantu but who himself was quite well. It thus appeared that it was the chef who had contaminated the one bowl of gravy, wherein the organisms had proliferated so infecting the 19 persons who were served from that bowl.
2. Following a report from a private practitioner as well as personal reports from some of those involved, it appeared that an outbreak of food poisoning followed the purchase of fried fish from a local Indian restaurant one Friday evening. As the investigation proceeded more cases came to light until it was found that approximately 27 persons had become ill, all of whom had eaten fish bought from the restaurant. The symptoms were chiefly

pyrexia and diarrhoea and in some instances were severe, with a certain amount of nausea and vomiting as well. The incubation period varied from 8 to 24 hours.

After thorough investigation of the premises the conclusion reached was that the food handler who had served the fish was possibly the carrier of the organism responsible for the food poisoning and his stool as well as those of the other shop assistants, were tested. Bacteriological analysis revealed the presence of *Salmonella newport* in many of the stools tested as well as in the food handler responsible for serving the fish on that Friday evening. It is noted that this person was the only one who served the fish during that period and he was a symptomless carrier. He was removed immediately from work, treated, and only allowed to return following three successive negative stool examinations.

3. An interesting form of food poisoning resulted from the eating of a vegetable marrow. Following enquiries of the Department of Agricultural Technical Services it was learnt that the eating of certain marrow, gem squashes, water melons and cucumbers which had a bitter taste, could well lead to food poisoning. Apparently a taste of bitterness in these vegetables is due to toxin Cucurbitacin and it is this which causes the food poisoning.

It is a disturbing thought that an outwardly normal marrow or other member of that vegetable family could be responsible for food poisoning, but it would appear that this is a result of cross pollination and need not necessarily affect all the marrows on one vine. The only protection against such an episode is to avoid eating such vegetables that have an unusually bitter taste.

VI. EPIDEMIOLOGICAL SURVEY REGARDING HUMAN INFECTION DUE TO SWIMMING IN POLLUTED SEA WATERS

During the period July 1964 to December 1965 this Department undertook an epidemiological survey as part of a C.S.I.R. research project monitoring the Durban sewage sea outfall pipelines in order to ascertain whether sewage pollution of sea water produced any tendency to illness or infection among humans swimming in these waters.

A school seaside holiday camp provided the 357 children who formed the basis of this survey. Tests undertaken comprised the culture of ear and throat swabs and the microscopy of stools. Unfortunately culture of stools could not be undertaken due to the immense amount of work involved which the laboratories could not undertake. These tests were performed upon arrival of each batch of children at the camp and before any swimming, and again at the end of the holiday which was 2 - 3 months later. The throat swabbing led to the discovery of 7 diphtheria carriers who were promptly admitted to hospital for treatment.

No evidence was forthcoming to indicate any trend that children showed tendency to illness or infection following their contact with the sea water.

VII. MEDICAL EXAMINATION OF BANTU WORK-SEEKERS

The number of male Bantu work-seekers that are examined at the Municipal Bantu Administration Department in Durban is increasing annually and during last year the total

number examined was 110,693 which is an increase of over 11,000 on the previous year. This total comprised the medical examination of 97,010 adults and 13,683 juveniles.

In previous years and prior to October 1965, only clinically suspect cases of tuberculosis were sent to the Durban Chest Clinic for screening. During October, however, routine X-raying of certain categories of Bantu male work-seekers was introduced and this service is performed by the Durban Chest Clinic on behalf of the Durban Bantu Administration Department at a charge of 20 cents per miniature X-ray. The categories that are so screened are as follows :-

- (a) Rural male work-seekers coming to seek work in the City; and
- (b) Male domestic Bantu servants changing their employment within the domestic sphere.

During October, November and December of 1965 the following statistics apply :-

Total Bantu X-rayed	...	...	...	4,924
Cases of active pulmonary tuberculosis discovered	...	...	...	29
Cases of presumably inactive pulmonary tuberculosis discovered	...	...	...	90

In addition to this screening for pulmonary tuberculosis, many other cases were referred to hospitals and clinics for further investigation of other suspect diseases, as follows :-

Venereal diseases	...	1,521
Bilharzia	...	2

In addition to the medical examination each Bantu passing through the registration office is routinely vaccinated and during the year 93,590 vaccinations were performed.

V. TUBERCULOSIS

INTRODUCTION

The following figures depict the number of cases of pulmonary tuberculosis in Durban at the end of 1965:-

Race	City cases	Ex-City cases
European	1,204	115
Coloured	988	91
Bantu	8,995	2,294
Asiatic	2,736	186
Totals	13,923	2,686

These tables do not include cases whose files have been closed. The City cases are cases which have been assessed as the financial responsibility of this Municipality while the ex-City cases are those for whom Durban is not financially responsible. However, this latter group comprises cases living outside the Durban municipal area but coming to work in Durban as well as country cases who have come to Durban because of their illness and are then found to be suffering from pulmonary tuberculosis while in this City. An illustration of the extent to which this occurs can be found in the case of the kwaMashu Bantu Township, where 34% of the new cases notified during 1965 from the kwaMashu Tuberculosis Clinic were ex-City cases.

STATISTICS OF CITY CASES

(a) Pulmonary Tuberculosis

(i) Notifications

The number of notifications of pulmonary tuberculosis received during the year 1965 is set out below together with the figures for the previous four years. The attack rate per 1000 population is also given.

Year	E	C	B	A	Total
1961	117	96	1,648	416	2,277
1962	129	85	1,524	332	2,070
1963	121	77	1,355	316	1,869
1964	121	110	1,256	479	1,966
1965	100	98	1,336	532	2,066

Attack rates per 1000 population :-

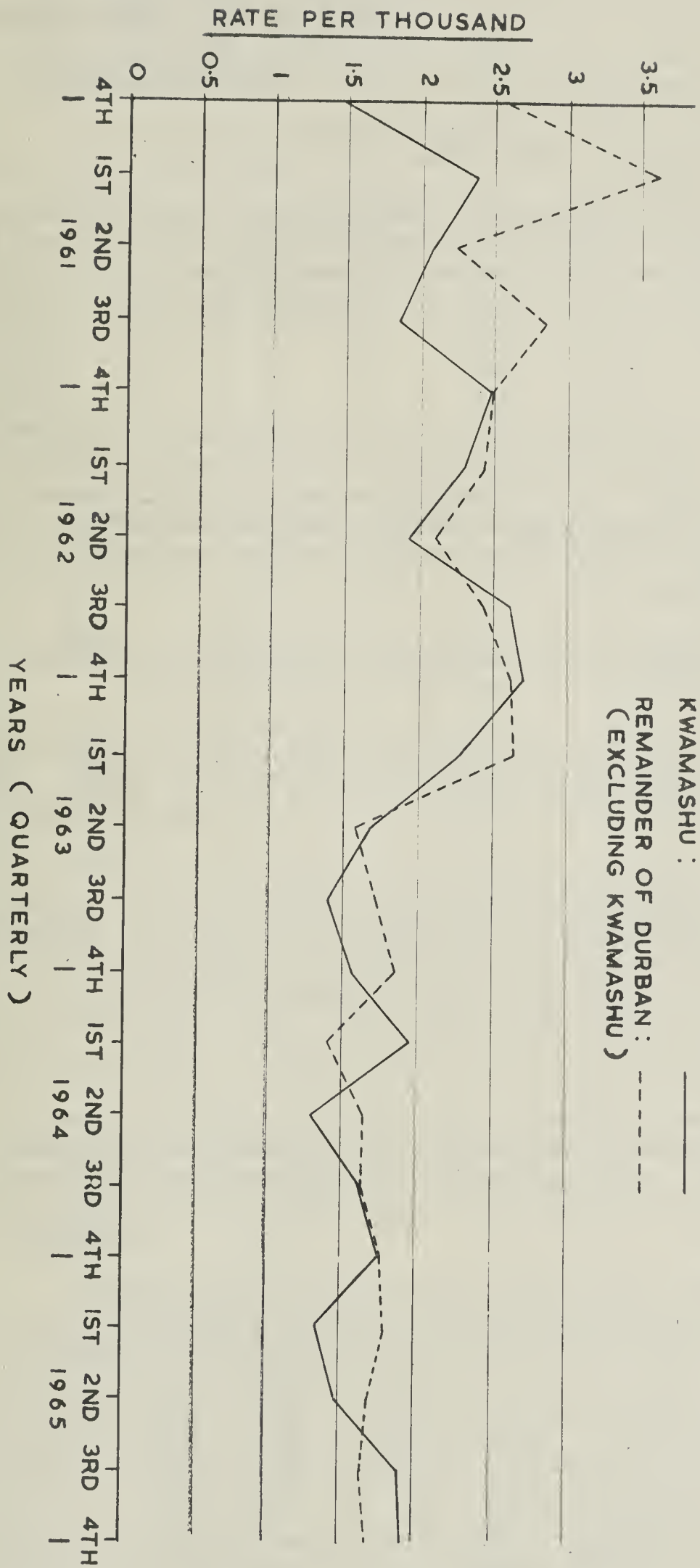
Year	E	C	B	A	Total
1961	.70	3.74	8.82	1.86	3.78
1962	.76	3.21	8.03	1.44	3.35
1963	.70	2.82	7.04	1.33	2.97
1964	.69	3.91	6.43	1.96	3.06
1965	.56	3.03	6.74	2.12	3.14

The age groups of 1965 notified pulmonary tuberculosis cases are as follows :-

PULMONARY TUBERCULOSIS : BANTU

QUARTER YEAR ATTACK RATES (PER 1,000 POPULATION)
IN KWAMASHU AND THE REMAINDER OF DURBAN :

OCTOBER, 1960 TO DECEMBER, 1965.



Ages	E	C	B	A	Total
0 - 4 years	7	21	223	95	346
5 - 14 "	3	22	158	78	261
15 - 24 "	7	7	178	105	297
25 - 44 "	23	21	516	146	706
45 - 64 "	45	19	238	88	390
65 and over	15	8	23	20	66

Source of notifications for 1965 :-

Of the 2,066 new pulmonary tuberculosis notifications:-
1,571 were notified from Tuberculosis Clinics
493 " " " Hospitals
2 " " " other sources.

Comment

The total number of notifications is again slightly higher than the previous year. While there was a decided decrease in the attack rate among the European and Coloured groups, there was a slight increase in the attack rates for Bantu and Asiatics with a slight increase in the overall attack rate.

In regard to age groups, a similar pattern to that for the Republic as a whole pertained.

The sources of notifications for this disease followed the same pattern as for the previous year. By far the majority of cases are being notified from the Tuberculosis Clinics.

The graph depicting the quarter year pulmonary tuberculosis attack rate for Bantu living in the kwaMashu Township is shown overleaf and indicates that the attack rate is similar to that for Bantu resident in the rest of Durban.

(ii) Deaths

Deaths of City cases corrected for inward and outward transfers and the death rate per 1000 population are set out below together with the figures for the previous four years :-

Deaths	E	C	B	A	Total
1961	14	13	129	42	198
1962	14	15	133	37	199
1963	14	6	129	22	171
1964	9	8	108	23	148
1965	15	13	120	30	178

The corresponding death rates were :-

Death Rate	E	C	B	A	Total
1961	.08	.51	.69	.19	.33
1962	.08	.57	.70	.16	.32
1963	.08	.22	.67	.09	.27
1964	.05	.28	.55	.09	.23
1965	.08	.44	.60	.11	.27

The overall death rate of .27 per 1000 population is slightly higher than the previous year. The severity of the disease on first presentation is a major factor when considering the death rate. This is most noticeable amongst the Bantu but severe cases, on first presentation, among Asiatics are also now being found.

(b) Non-Pulmonary Tuberculosis

(i) Notifications

The total notifications of non-pulmonary tuberculosis are set out below :-

Year	E	C	B	A	Total
1961	1	4	102	44	151
1962	14	5	56	33	108
1963	2	-	50	30	82
1964	6	1	50	44	101
1965	-	2	50	48	100

The 100 notifications during 1965 have been analysed according to age groups as follows :-

Ages	E	C	B	A	Total
0 - 4 years	-	-	2	3	5
5 - 14 "	-	-	4	4	8
15 - 24 "	-	1	14	13	28
25 - 44 "	-	-	21	17	38
45 - 64 "	-	1	7	10	18
65 and over	-	-	2	1	3
Totals	-	2	50	48	100

The notifications are highest in the 25 - 44 years age group as is the case with pulmonary tuberculosis. Unlike the latter, however, there are very few notifications under the age of 15 years but notifications of tuberculosis meningitis are not included in the non-pulmonary category, as they are notified as suffering concomitantly from pulmonary tuberculosis and are included in that group.

(ii) Deaths

Deaths and death rates from non-pulmonary tuberculosis for the past five years corrected for inward and outward transfer, are as follows :-

Deaths	E	C	B	A	Total
1961	1	2	32	14	49
1962	-	3	36	11	50
1963	1	-	19	10	30
1964	1	-	28	12	41
1965	1	1	21	5	28

The corresponding rates were :-

Death Rate	E	C	B	A	Total
1961	.006	.078	.171	.062	.081
1962	-	.113	.190	.048	.081
1963	.006	-	.099	.042	.048
1964	.006	-	.143	.049	.064
1965	.005	.034	.105	.019	.042

HOSPITAL FACILITIES

Natal is divided into four zones for the administration of hospital bed facilities by the State Health Department. Durban falls into the Central zone and the following hospitals with their tuberculosis bed capacity are situated in this zone.

Hospital	E	C	B	A	Total Beds
1. King George V Hospital	85	76	1,348	76	1,585
2. F.O.S.A. T.B.Settlement	-	-	-	186	186
3. Charles James Santa Centre, Umlazi	-	-	280	-	280
4. Botha's Hill T.B. Settlement	-	-	177	-	177
5. Osindisweni Mission, Verulam	-	-	181	-	181
6. McCord Mission Hospital	-	-	38	-	38
7. St. Mary's Mission, Mariannhill	-	-	73	-	73
8. Umlazi Mission Hospital	-	-	59	-	59
9. Ekuphilisweni Mission, Kearsney	-	-	46	-	46
10. Illovo Sugar Estates Hospital	-	-	43	-	43
11. Montebello Mission Hospital	-	-	90	-	90
12. Umpumulo Mission Hospital	-	-	47	-	47
Totals	85	76	2,382	262	2,805

As at the 31st December 1965 these hospitals contained the following numbers of patients who were this City's financial responsibility :-

Hospital	E	C	B	A	Total
1. King George V Hospital	27	30	230	62	349
2. F.O.S.A. T.B. Settlement	Nil	12	10	89	111
3. Charles James Santa Centre	Nil	Nil	90	Nil	90
4. Botha's Hill T.B. Settlement	Nil	Nil	40	Nil	40
5. Osindisweni Mission	-	-	22	-	22
6. McCord Mission Hospital	-	2	11	3	16
7. St. Mary's Mission	-	-	11	-	11
8. Umlazi Mission Hospital	-	-	9	-	9
9. Ekuphilisweni Mission	-	-	3	-	3
10. Illovo Sugar Estates Hospital	-	-	-	-	-
11. Montebello Mission Hospital	-	-	-	-	-
12. Umpumulo Mission Hospital	-	-	-	-	-
Totals	27	44	426	154	651

A further total of 26 Durban cases were hospitalised at other hospitals outside the Central zone, e.g. Richmond Hospital (15 Bantu patients) and 31 patients were also accommodated in local provincial hospitals.

Charles James Santa Centre: During July 1965 the Charles James Santa Settlement, which is situated in the Umlazi Bantu Reserve and is only 10 miles from the City centre, was completed and the first patients admitted. This Hospital has a bed capacity for 280 adult Bantu males and has greatly alleviated the shortage of hospital beds for the Bantu. The opening of this Centre has made it possible for more Durban cases to be hospitalised locally and an Assistant Medical Officer of Health from this Department serves on the Management Committee of the Santa Centre. From the table above it will be seen that 90 City cases were hospitalised there as at December 31st, 1965.

While Bantu beds were more freely available by the end of the year, there has been a great need for the creation of more Asiatic hospital beds. Representations along these lines were made to the State Health Department.

During 1965, 1,502 City cases were admitted to

various hospitals comprising 71 Europeans, 74 Coloureds, 991 Bantu and 366 Asiatics. This total is once again lower than the previous year's figures of 1,617 admissions. Discharges of City cases numbered 1,021 and comprised 56 Europeans, 60 Coloureds, 676 Bantu and 229 Asiatics. In all 141 patients absconded from or left hospital against medical advice. This is a high figure and once again emphasises one of the main problems in dealing with tuberculosis, namely, the lack of co-operation and understanding on the part of some patients. Nonetheless, every attempt is made to follow-up these refractory cases, to health educate them, and above all to ensure that their treatment is continued.

King George V Hospital: This is the only tuberculosis hospital within the Durban Borough, and as indicated above caters for 50% of City cases requiring hospitalisation (350 out of a total of 709 patients in hospital). In view thereof it would be appropriate to include some statistics relative to that hospital, kindly supplied by the Medical Superintendent :

King George V Hospital	E	C	A	B	Total
Admissions 1965	314	135	286	2,527	3,262
Discharges 1965 (including deaths)	316	135	279	2,678	3,408

King George V Hospital	1961	1962	1963	1964	1965
Irregular discharges as a percentage of all discharges	18.5%	12.5%	13%	11%	8.1%
Pulmonary tuberculosis "relapse rate" (Ratio readmissions to total admissions)	15.5%	16.75%	16.2%	17%	17.3%

OUTPATIENT SERVICES

There are six clinics at present in the City providing diagnostic and treatment facilities for pulmonary tuberculosis. The main clinic, the Durban Chest Clinic, which is situated in the centre of Durban serves all races and is controlled by the State Health Department.

The remaining five clinics are Municipal clinics administered by this Department and are situated in various non-European districts to serve the different non-White groups.

(A) Durban Chest Clinic

The following information and statistics have been extracted from the Annual Report for this clinic, through the good offices of the Medical Superintendent, Durban Chest Clinic.

During 1965 the clinic has had an Organisation and Methods inspection which led to a certain amount of re-organisation in anticipation of acceptance of the Inspector's report by the Public Service Commission. As a result of a reduction in full-time medical staff, research projects have been severely curtailed.

Under authority of the Secretary for Health certain categories of male work-seekers are referred by the Durban Bantu Affairs Department to the Durban Chest Clinic for pre-employment screening. A preliminary assessment indicates that active tuberculosis has been discovered in approximately 1% of those referred. In addition to this arrangement with the local Bantu Affairs Department, many industrial concerns are paying the prescribed fee of 20 cents for screening of all prospective employees.

Diagnostic and Treatment Services

In view of the re-organisation of this clinic the statistics are available in a different form compared to previous years.

(i) X-Rays

Pre-employment 70 m.m. X-rays	18,441
Influx control 70 m.m. X-rays	4,754
Government Departments	2,783
Mass X-ray of Suspects and Contacts:	
Borough cases	19,550
Ex-City cases	6,669
Shipping and Other Firms 100 m.m. and large plate service	4,285
Clinical interviews 100 m.m. and large plate X-rays:	
Borough	30,206
Ex-Borough	13,047
Total X-rays taken	<u>99,735</u>

(ii) Notifications

Borough	1,290
Ex-borough	1,361

(iii) Tuberculin Tests

Heaf tests given - Borough	5,470
Ex-borough	2,193
Heafs read - Borough	3,906
Ex-borough	1,313
Heafs positive - Borough	2,611
Ex-borough	825

(iv) B.C.G. Inoculations

Borough	1,520
Ex-borough	726

(v) Streptomycin Injections

Borough	12,738
Ex-borough	-

(vi) Other Injections

Borough	566
Ex-borough	-

(vii) Sputum examinations

9,033
of which 308
were positive.

(B) Peripheral Municipal Tuberculosis Clinics

Introduction

This Department operates five peripheral tuberculosis clinics namely at Chatsworth, Merebank, Lamontville, Cato Manor and kwaMashu. The following table reflects the facilities that were available at these clinics during 1965.

Clinic	Race	Hours	Days	X-Ray Facilities	Hours
kwaMashu	Bantu	9 a.m.- 3 p.m.	Monday to Friday	Monday and alternate Tuesdays and Fridays	9 a.m.- 1 p.m.
Cato Manor	Bantu and Asian	-do-	Monday and Thursday only	Thursday only	-do-
Merebank	Asian	-do-	Fridays only	Alternate Fridays only	-do-
Chatsworth	Asian	-do-	Tuesdays only	Alternate Tuesdays only	-do-
Lamontville	Bantu	-do-	Wednesdays only	Wednesday only	-do-

The Secretary for Health's approval was obtained for the purchase of a second mobile 100 m.m. X-ray unit and delivery thereof will take place during 1966. Adequate X-ray coverage will then be available at the various clinics.

The problem of clinic defaulters remains unchanged despite the fact that these peripheral clinics are situated within easy reach in the various non-white areas. This is a problem that will remain for decades and only intensive health education will help to effect any improvement.

Clinic Attendances

The following figures reflect the work performed at these clinics during 1965:-

Details	Cato Manor	kwa- Mashu	Mere- bank	Chats- worth	Lamont- ville	Total
No. of sessions	96	250	51	51	52	500
Total attendances	5,552	33,000	7,332	9,031	8,940	63,855
Contacts seen	601	2,059	376	683	1,359	5,078
Suspects seen	397	1,958	950	1,363	1,087	5,755
Tuberculin tests done	676	2,458	942	1,410	1,633	7,119
B.C.G. Inoculations	477	3,123	1,129	1,271	638	6,638
Streptomycin injections	343	7,701	52	34	356	8,486
X-rays taken	1,238	5,524	978	1,655	2,374	11,769

There has been a marked increase in the amount of work performed compared with 1964 and a 50% increase in total attendances is noted.

All new attendances are first interviewed by the Medical Officer and some are disposed of without being admitted for further investigation. These are persons who cannot be classed as tuberculosis suspects or contacts.

During 1965 the following numbers of persons were admitted to the clinics for the first time:-

Cato Manor	kwaMashu	Merebank	Chatsworth	Lamontville	Total
1,026	5,484	1,352	2,082	2,491	12,435

Investigations of these admissions yielded the following numbers of cases of pulmonary tuberculosis :-

Cato Manor	kwaMashu	Merebank	Chatsworth	Lamontville	Total
58	484	31	64	235	872

Contacts are regularly recalled for X-ray follow-up and prophylactic treatment is only given where indicated. Unfortunately many of these contacts do not come back for re-X-ray as requested, and owing to the large number of persons involved it is not possible to continue pursuing such defaulters when they fail to appear after their first recall.

The yield of pulmonary tuberculosis cases from contacts and suspects is tabulated hereunder :-

Details	Cato Manor	kwa-Mashu	Mere-bank	Chats-worth	Lamont-ville
Percentage of pulmonary tuberculosis cases discovered among contacts	3.1%	5.1%	2.4%	2.8%	6%
Percentage of pulmonary tuberculosis cases discovered among suspects	2.7%	7.9%	1.2%	0.4%	3.7%

Tuberculin Testing

The Heaf test is routinely performed on all children under 15 years of age and the table hereunder analyses the results of these tests.

Tuberculin Tests	Cato Manor	kwaMashu	Merebank	Chatsworth	Lamontville
Tests done	678	2,458	938	1,403	1,637
Tests read	639 (95.7%)	1,997 (82%)	903 (96.3%)	1,367 (90.2%)	1,536 (93.8%)
Positive	278	755	294	459	963
Negative	371	1,242	609	908	573

To obtain these high percentage readings of tuberculin tests, defaulters' lists are regularly prepared and much work on the part of the clinic staff and field health assistants is necessary.

All tuberculin negative reactors are given B.C.G. inoculation by the percutaneous 20-needle method. Impressions over the years have been that on the whole, the conversion rate is not high and only a mild to 1+ conversion is achieved. Furthermore, this conversion is not apparent if follow-up tuberculin testing is done 8 weeks after the B.C.G. inoculation and for this reason it has been necessary to extend the conversion tuberculin test to a period of 12 weeks after the B.C.G. Vaccine has been given.

(C) Umhlatuzana Clinic

Following the incorporation into the Borough of Durban of the Umhlatuzana area which had been served by the Local Health Commission, arrangements were made for City cases living in this area to continue attending the Local Health Commission Clinic. For the year ending 1965, the relevant figures are:

Total pulmonary tuberculosis attendances	:	1,114
New " " cases	:	54

B.C.G. IMMUNISATION IN DURBAN

Percutaneous freeze dried B.C.G. vaccine as supplied by State Health Department free of charge is used in this Department and the method of administration is with a 20-needle Heaf gun over the right deltoid area.

B.C.G. immunisation is administered to newborn infants at the King Edward VIII Hospital, McCord Zulu Hospital and St. Aidan's Mission Hospital in Durban. The total number of immunisations administered during 1965 in the City was made up as follows :-

Newborns at King Edward VIII Hospital	:	14,893
" " McCord Zulu Hospital	:	2,047
" " St. Aidan's Mission Hospital	:	2,189
Municipal Tuberculosis Clinics	:	6,640
Durban Chest Clinic	:	1,520
Various Schools	:	<u>4,841</u>
Total	:	<u>32,130</u>

FIELD WORK AND CONTROL PROGRAMMES

With the continued improvement of tuberculosis services in general there has been a need to increase the amount of field work carried out. This field work entails mainly investigating cases, tracing of contacts and defaulters, and ensuring their regular attendance at the various clinics.

The field staff responsible for this control work comprises 5 European Health Visitors, 1 European Health Inspector, 15 Bantu and 9 Asiatic Health Assistants. An administrative clerical staff of 4 Europeans and 1 Bantu are required for the compilation of the enormous amount of clerical work that is involved.

Home visiting accounted for 56,022 visits during 1965 and comprised 5,518 visits to Europeans, 3,375 visits to Coloureds, 30,107 visits to Bantu and 17,022 visits to Asiatics. This total represents an increase of over 7,000 visits compared to the previous year.

SUPPLEMENTARY FEEDING OF INDIGENT TUBERCULOSIS CASES

The distribution of food continued from the various tuberculosis clinics thus obviating lengthy journeys to this Department's main office and also saving transport costs for the patients.

There was no remarkable change in the number of rations distributed, being 8,199 as compared with 8,283 for 1964. The total cost was R7,923 as against R8,077.

The rations are mainly made up of dried milk powder, meats, fortified maize products and fats and have a very high nutritional value. They have been greatly appreciated by the recipients.

The subjoined table reflects the rations distributed to the various age and race groups.

Age Group (Years)	Euro-pean		Coloured		Asiatic		Bantu		Total	
	Patients	Rations	Patients	Rations	Patients	Rations	Patients	Rations	Patients	Rations
0 - 4	-	-	3	200	1	7	17	264	21	471
5 - 8	-	-	5	110	4	60	7	65	16	235
9 - 12	-	-	2	89	3	98	3	70	8	257
13 and over	8	197	32	1,295	48	1,693	153	4,051	241	7,236
Totals	8	197	42	1,694	56	1,858	180	4,450	286	8,199

DOMICILIARY ASSISTANCE

This assistance which is initiated by the field control workers takes various forms such as food rations, disability grants and aid from the Natal Anti-Tuberculosis Association. The five European Health Visitors from this Department serve on the Care Committee of the Natal Anti-Tuberculosis Association and assist in decisions for the various grants made.

An extract on care work from the Annual Report of the Natal Anti-Tuberculosis Association for 1965 is presented hereunder with the kind permission of that Association.

"Care work for patients and their families is an important part of the work of the Association and the Care Committee meets once a month to allocate funds available. There are continuously on our books between 450 and 500 patients for whose families assistance is regularly required. It will be understood from the figures given that assistance can be only a fraction of what could reasonably be considered necessary, but the best is done under the circumstances.

Generally speaking the basis of our assistance is on the following lines :-

- (a) To families of all racial groups where the breadwinner is incapacitated through tuberculosis.
- (b) Financial aid and food for those receiving domiciliary treatment.
- (c) Help after treatment until work is found.
- (d) Milk, butter and eggs for children suffering from primary tuberculosis.

Amounts expended in recent years on care work have been as under :-

1963	...	R14,683
1964	...	15,635
1965	...	16,290

Disability and Maintenance grants are obtainable through various Government sources, and an endeavour is made to see that advantage is taken of these grants. Naturally some time elapses before these grants are available and it is here that the Association is able to come to the assistance of the patient immediately. Most cases are typical and the need is usually for food, rent, and payments on account of furniture obtained on hire-purchase.

From time to time representatives of the Social Welfare Department, Coloured Affairs Department and Bantu Child Welfare also attend Care meetings and their advice is appreciated.

The opening during the year of the Charles James SANTA Centre (our austerity hospital for 280 patients) has brought an increase of approximately sixty patients requiring assistance for families."

VI. VENEREAL DISEASES

INTRODUCTION

The clinics for venereal diseases continued to function satisfactorily throughout the year, the overall attendances varying slightly. The figures quoted in this report refer only to cases treated at Municipal clinics, there is no record of cases treated at other institutions, or by district surgeons and private practitioners who are not required to make any returns to the local authority.

NEW CASES

The total number of new cases showed an increase of 1.1% over the previous year, 17,367 compared with 17,193 cases in 1964.

TOTAL ATTENDANCES

There was an increase of 2.6% over the previous year's figure of attendances, viz: 47,922 compared with 46,708 attendances.

CLINIC SERVICES

Addington: One clinic session is held at Addington Hospital each day for European and Coloured cases in premises apart from the normal outpatient department, but within the hospital precincts. The clinic is administered and staffed by this Provincial Hospital, which is reimbursed on a per capita basis by the Durban Corporation in respect of City cases. Attendances during the year were as follows:

Race	New cases			Total attendances		
	M	F	Total	M	F	Total
European	938	138	1,076	2,981	486	3,467
Coloured	360	81	441	1,617	532	2,149

Congella: This clinic is situated in the grounds of the King Edward VIII Hospital, utilising the hospital building, but administered and staffed by the City Health Department.

The clinic is open throughout normal working hours, with a late session once per week and together with the kwaMashu Clinic serves the Bantu and Asiatic communities.

kwaMashu: One morning session ranging between 2 and 3 hours per week is sufficient for the number of patients attending this clinic. During October 1965, the clinic was moved to Rydalvale which is in the centre of the township. Attendances at the Congella and kwaMashu clinics combined, were as under :-

Race	New cases			Total attendances		
	M	F	Total	M	F	Total
Bantu	10,342	4,509	14,851	28,680	11,440	40,120
Asiatic	740	259	999	1,561	625	2,186

WARD ADMISSIONS

There are two wards for Bantu and Asiatic patients suffering from venereal diseases at Clairwood Hospital, consisting of 20 female and 19 male beds. During the year, 214 males and 777 females were admitted to hospital. This total of 991 is 95 more than were hospitalised during 1964.

CONTACTS

The tracing of contacts can be regarded as reasonably satisfactory as 30-40% of contacts attend the clinic for investigation and treatment.

SIDEROOM

In order to establish an early diagnosis, microscopic examinations of all discharges are carried out in the sideroom at every clinic session and when necessary examinations by means of dark ground illumination are also performed.

The following examinations were carried out in the sideroom at Congella clinic :-

Smears	...	15,189
Urine	...	3,827

LABORATORY WORK

The following serological examinations for syphilis were carried out at the Government Laboratories, Currie Road :-

Kolmer	}	21,232
V.D.R.L.		

LYMPHOGRANULOMA VENEREUM

This disease has been diagnosed with some frequency at the Municipal clinics within recent years. Comparison with other centres shows that this disease is rare in the rest of the Republic. In view thereof, it was decided to conduct a special serological survey to add confirmation to the clinical diagnosis. Preliminary tests have shown positive titres ranging from 1 in 5 to 1 in 100 dilution in some of the cases. It is considered that a titre of 1 in 40 may be regarded as the dividing line between negative and positive and a controlled survey will be instituted during 1966 when the State Health Department will be in a position to conduct the laboratory tests locally.

ANTE-NATAL WORK

Ante-natal cases totalling 1,024 were referred to the Special Clinic for serological examination, and all positive cases were treated.

STATISTICAL SUMMARY (ALL RACES) TREATED IN 1965

DETAILS	European			Coloured			Bantu			Asiatic			TOTAL
	City		Ex-City	City		Ex-City	City		Ex-City	City		Ex-City	
	M	F	M	M	F	M	M	F	M	M	F	M	F
New cases	452	135	486	3	78	54	3	2,611	1,970	1,898	677	235	24
Total attendances	2,077	471	904	15	525	123	7	6,860	4,978	4,580	1,440	577	48
Hospital admissions								463	52	285	16	29	
													991

VENEREAL DISEASES AMONG BANTU AND ASIATICS 1965

	New cases		Total attendances	
	M	F	M	F
1. Sero-Negative Primary Sy.	1,168	58	2,585	133
2. Sero-Positive Primary Sy.	51	8	1,360	85
3. Secondary Sy.	125	584	278	1,133
4. Tertiary Sy. (Recognised clinically)	-	1	-	4
5. Latent (Diagnosed on result of serological test alone)	60	125	2,330	2,240
6. Neuro-Syphilis	-	-	-	-
7. Congenital Sy. (under 1 year)	35	35	114	109
8. Congenital Sy. (Over 1 year)	8	14	29	49
Total Syphilis	1,447	825	6,696	3,753
9. Gonorrhoea	4,751	683	8,684	1,166
10. G.C. Vulvo-Vaginitis	-	2	-	7
11. G.C. Ophthalmia	11	18	28	38
Total G.C. Infections	4,762	703	8,712	1,211
12. Ulcus Molle	1,100	78	2,424	171
13. Lymphogranuloma Venereum	120	10	543	35
14. Granuloma Inguinale	1	-	3	-
15. Venereal Warts	464	126	1,624	386
16. Non-specific Urethritis	2,612	2,981	7,026	5,760
17. Non-Venereal	887	239	4,285	1,549
Total	5,184	3,434	15,905	7,901
GRAND TOTAL	11,393	4,962	31,313	12,865

VII. IMMUNISATION

The prevention of outbreaks of infectious disease by immunisation remains one of the most important functions of this Department. Facilities are provided free of charge for the immunisation of all susceptible members of the community against smallpox, poliomyelitis, diphtheria, whooping cough and tetanus and in the case of food-handlers against typhoid and paratyphoid fevers, while B.C.G. inoculation in the control of tuberculosis is also undertaken as described elsewhere in this report.

When infants reach the age of 3 months parents are advised by postcard to take their children to the Child Health Clinic or to their own doctor for immunisation. Parents are further encouraged to have their children immunised by means of press statements and radio talks and at the child health clinics by the medical officers, health visitors and clinic sisters. In the case of school children questionnaires are sent to all schools to determine the immunisation state of scholars up to the age of 10 years and the required vaccines are administered by the Department's school immunisation teams which visit all schools in the Durban area annually. Other institutions such as places of safety, creches and play centres are also visited by the same teams. Finally, where no facilities for immunisation exist a mobile immunisation team in a purpose-designed vehicle provides these facilities by periodical visits to such areas.

Vaccination against Smallpox

Routine vaccination against smallpox proceeded at all child health clinics and in the field throughout the year. Although the total number of vaccinations performed was lower than that for the preceding year when emergency mass vaccination campaigns were necessary, it was higher than average following a warning issued by the State Health Department during December 1964 to the effect that persons unable to produce proof of successful vaccination against smallpox could be prosecuted.

The public response to the extensive radio and press publicity given this statement is shown by the exceptionally high figure of 54,000 routine vaccinations against smallpox performed at Departmental clinics during the months of January and February 1965.

The figures for the year are shown in the following table:-

Vaccinations against Smallpox	E	C	B	A	Total
Primary vaccinations	4,686	2,880	8,253	13,033	28,852
Re-vaccinations	28,637	3,883	8,549	12,650	53,719
Totals	33,323	6,763	16,802	25,683	82,571

(During 1964 - 130,553 persons were vaccinated against smallpox.)

In addition to the above 93,590 Bantu work-seekers were vaccinated against smallpox at the Municipal Bantu Administration Department offices giving a grand total

of 176,161 persons vaccinated against smallpox during the year. This figures does not include vaccinations performed at the offices of the District Surgeon and the Port Health Officer for international travel purposes or vaccinations performed by private practitioners in Durban, nor does this include the compulsory vaccination of prisoners routinely carried out in the City gaols.

Combined Diphtheria/Whooping Cough and Tetanus Immunisation

A total of 48,020 doses of combined diphtheria, whooping cough and tetanus vaccine was administered during the year at child health clinics, nursery schools and play centres. Of this number 43,039 doses were administered to children in the under 1 year old age group. The details are as follows:-

Combined D.W.T. Vaccine	E	C	B	A	Total
1st dose	2,614	1,635	7,752	8,328	20,329
2nd dose	2,251	1,491	4,550	6,823	15,115
3rd dose	2,078	1,448	3,258	5,493	12,277
Booster dose	153	50	45	51	299
Total	7,096	4,624	15,605	20,695	48,020

(During 1964 - 48,280 doses D.W.T. vaccine were administered.)

Combined Diphtheria and Tetanus Immunisation

In addition to the combined diphtheria and tetanus immunisation performed at child health clinics, all the schools in the Durban area were visited by the schools' immunisation teams and pupils up to the age of 10 years were given the required immunising or booster doses, details of which appear in the table below :-

Combined D.T. Vaccine	E	C	B	A	Total
1st dose	1,118	868	4,593	9,542	16,121
2nd dose	978	785	4,378	8,857	14,998
3rd dose	381	585	3,698	7,346	12,010
Booster dose	4,160	960	546	2,820	8,486
Total	6,637	3,198	13,215	28,565	51,615

(During 1964 - 51,078 doses D.T. vaccine were administered.)

Immunisation against Poliomyelitis

Routine immunisation against poliomyelitis was carried out at all the child health clinics and by the mobile immunisation team where clinic facilities were lacking. In addition the poliomyelitis oral vaccine was supplied on application to medical practitioners in the Durban area and to hospitals subject to the furnishing of monthly returns of persons to whom the vaccine was administered. The following table shows the number of doses of poliomyelitis oral vaccine administered during the year according to race :-

Immunisation against Poliomyelitis

Age Group	Dose	E	C	B	A	Total
Under 1 year	1st dose	3,107	1,353	5,272	6,901	16,633
	2nd dose	2,714	1,272	3,110	5,310	12,406
	3rd dose	2,370	1,021	1,982	3,787	9,160
	Totals	8,191	3,646	10,364	15,998	38,199
1 - 4 years	1st dose	269	250	3,077	1,891	5,487
	2nd dose	258	320	2,071	1,841	4,490
	3rd dose	325	366	1,716	2,129	4,536
	Totals	852	936	6,864	5,861	14,513
5 - 9 years	1st dose	82	52	2,184	394	2,712
	2nd dose	76	86	596	316	1,074
	3rd dose	107	84	372	323	886
	Totals	265	222	3,152	1,033	4,672
10 - 19 years	1st dose	100	18	735	129	982
	2nd dose	31	47	521	131	730
	3rd dose	30	54	862	131	1,077
	Totals	161	119	2,118	391	2,789
Over 19	1st dose	202	9	604	75	890
	2nd dose	205	9	173	44	431
	3rd dose	208	10	97	60	375
	Totals	615	28	874	179	1,696
	Totals	10,084	4,951	23,372	23,462	61,869

Typhoid Control in Food-handlers : Vi-tests

Vi-tests	5	-	766	62	833
Vi-Positive Results	-	-	-	-	-

Typhoid Control: Combined Typhoid-Paratyphoid A and B (TAB) Immunisation

1 - 6 years	1st dose	-	-	-	3	3
	2nd dose	-	-	-	-	-
	Booster dose	1	-	2	44	47
	Totals	1	-	2	47	50
School Age	1st dose	3	-	-	2	5
	2nd dose	1	-	-	-	1
	Booster dose	-	-	-	2	2
	Totals	4	-	-	4	8
Adults	1st dose	34	-	800	82	916
	2nd dose	16	3	666	92	777
	Booster dose	22	2	336	111	471
	Totals	72	5	1,802	285	2,164
	Totals	77	5	1,804	336	2,222

Poliomyelitis Oral Vaccine	E	C	B	A	Total
1st dose	3,760	1,682	11,872	9,390	26,704
2nd dose	3,284	1,734	6,471	7,642	19,131
3rd dose	3,040	1,535	5,029	6,430	16,034
Total	10,084	4,951	23,372	23,462	61,869

(During 1964 - 64,699 doses of poliomyelitis oral vaccine were administered.)

Typhoid Control in Food-handlers

Clinics were held twice a week throughout the year for Vi-tests to be performed on selected food-handlers and for the administration of the combined typhoid, paratyphoid A and B vaccine, details of which appear in the following table:-

Vi-tests	E	C	B	A	Total
Blood samples	5	-	766	62	833
Positive results	-	-	-	-	-

(During 1964 - 839 blood samples were taken.)

Combined TAB Vaccine	E	C	B	A	Total
1st dose	37	-	800	87	924
2nd dose	17	3	666	92	778
Booster doses	23	2	338	157	520
Total	77	5	1,804	336	2,222

(During 1964 - 2,040 doses of TAB vaccine were administered.)

Details of Immunisations according to Race and Age Groups

Combined Diphtheria, Whooping Cough and Tetanus (D.W.T.) Immunisation

Age Group	Dose	E	C	B	A	Total
Under 1 year	1st dose	2,548	1,576	6,452	8,033	18,609
	2nd dose	2,209	1,415	3,629	6,472	13,725
	3rd dose	2,027	1,341	2,327	5,010	10,705
	Booster dose	-	-	-	-	-
	Totals	6,784	4,332	12,408	19,515	43,039
1 - 6 years	1st dose	66	58	1,161	295	1,580
	2nd dose	42	76	915	351	1,384
	3rd dose	51	107	906	483	1,547
	Booster dose	132	47	43	51	273
	Totals	291	288	3,025	1,180	4,784
School age	1st dose	-	1	139	-	140
	2nd dose	-	-	6	-	6
	3rd dose	-	-	25	-	25
	Booster dose	21	3	2	-	26
	Totals	21	4	172	-	197
	Totals	7,096	4,624	15,605	20,695	48,020

Combined Diphtheria and Tetanus (D.T.) Immunisation

Age Group	Dose	E	C	B	A	Total
Under 1 year	1st dose	28	34	93	121	278
	2nd dose	19	28	36	76	159
	3rd dose	20	37	34	78	169
	Booster dose	-	-	-	-	-
	Totals	67	99	165	275	606
1 - 6 years	1st dose	99	154	1,413	1,210	2,876
	2nd dose	76	121	1,179	832	2,208
	3rd dose	67	80	700	603	1,450
	Booster dose	916	328	145	762	2,151
	Totals	1,158	683	3,437	3,407	8,685
School age	1st dose	991	680	3,085	8,211	12,967
	2nd dose	883	636	3,163	7,949	12,631
	3rd dose	294	468	2,964	6,665	10,391
	Booster dose	3,244	632	401	2,058	6,335
	Totals	5,412	2,416	9,613	24,883	42,324
	Totals	6,637	3,198	13,215	28,565	51,615

Tetanus Immunisation

Tetanus immunisation per se was not given to the under 1 year and up to 6 years age groups, but only to school children and adults as under :-

School age	1st dose	2	-	-	1	3
	2nd dose	-	-	-	-	-
	Booster dose	8	-	-	-	8
	Totals	10	-	-	1	11
Adults	1st dose	3	1	-	1	5
	2nd dose	-	-	-	-	-
	Booster dose	-	-	-	-	-
	Totals	3	1	-	1	5
	Totals	13	1	-	2	16

Vaccination against Smallpox

Under 1 year	Primary	3,450	1,705	5,328	6,521	17,004
	Re-vaccination	-	-	-	-	-
	Totals	3,450	1,705	5,328	6,521	17,004
1 - 6 years	Primary	713	504	2,138	4,706	8,061
	Re-vaccination	1,110	328	249	554	2,241
	Totals	1,823	832	2,387	5,260	10,302
School Age	Primary	340	369	146	1,236	2,091
	Re-vaccination	7,953	1,459	837	6,771	17,020
	Totals	8,293	1,828	983	8,007	19,111
Adults	Primary	183	302	641	570	1,696
	Re-vaccination	19,574	2,096	7,463	5,325	34,458
	Totals	19,757	2,398	8,104	5,895	36,154
	Totals	33,323	6,763	16,802	25,683	82,571

VIII. MATERNAL AND CHILD HEALTH

A. STAFF

In order to carry out its responsibilities in the European, Coloured, Bantu and Asiatic areas of the City, and to fulfil its many functions including supervision of midwives, promotion of maternal and child health, immunisation, family planning, home visiting and inspection of creches and play centres, this section is comprised of a fairly large staff including full-time and part-time clinical medical officers, health visitors, clinic sisters, nurses, clinic assistants, nurse aides, health assistants, general assistants and interpreter/cleaners.

During January 1965 an additional full-time clinical medical officer assumed duty.

Details of the clinic staff of the Maternal and Child Health Section are shown in the table below :-

Post	E	C	B	A	Total
Senior Clinical Medical Officer	1	-	-	-	1
Clinical Medical Officer	1	-	-	-	1
Part-time Medical Specialist	1	-	-	-	1
Part-time Clinical Medical Officers	5	-	-	-	5
Chief Health Visitor	1	-	-	-	1
Deputy Chief Health Visitor	1	-	-	-	1
Senior Health Visitors	1	-	1	1	3
Health Visitors	22	2	16	6	46
Clinic Sisters	5	-	-	-	5
Nurses	-	-	2	7	9
Clinic Assistants	12	-	-	-	12
Nurse Aides	-	2	10	18	30
Health Assistants	-	-	4	4	8
General Assistants	-	-	-	1	1
Interpreter/Cleaners	-	-	6	6	12
Totals	50	4	39	43	136

B. INFANT MORTALITY

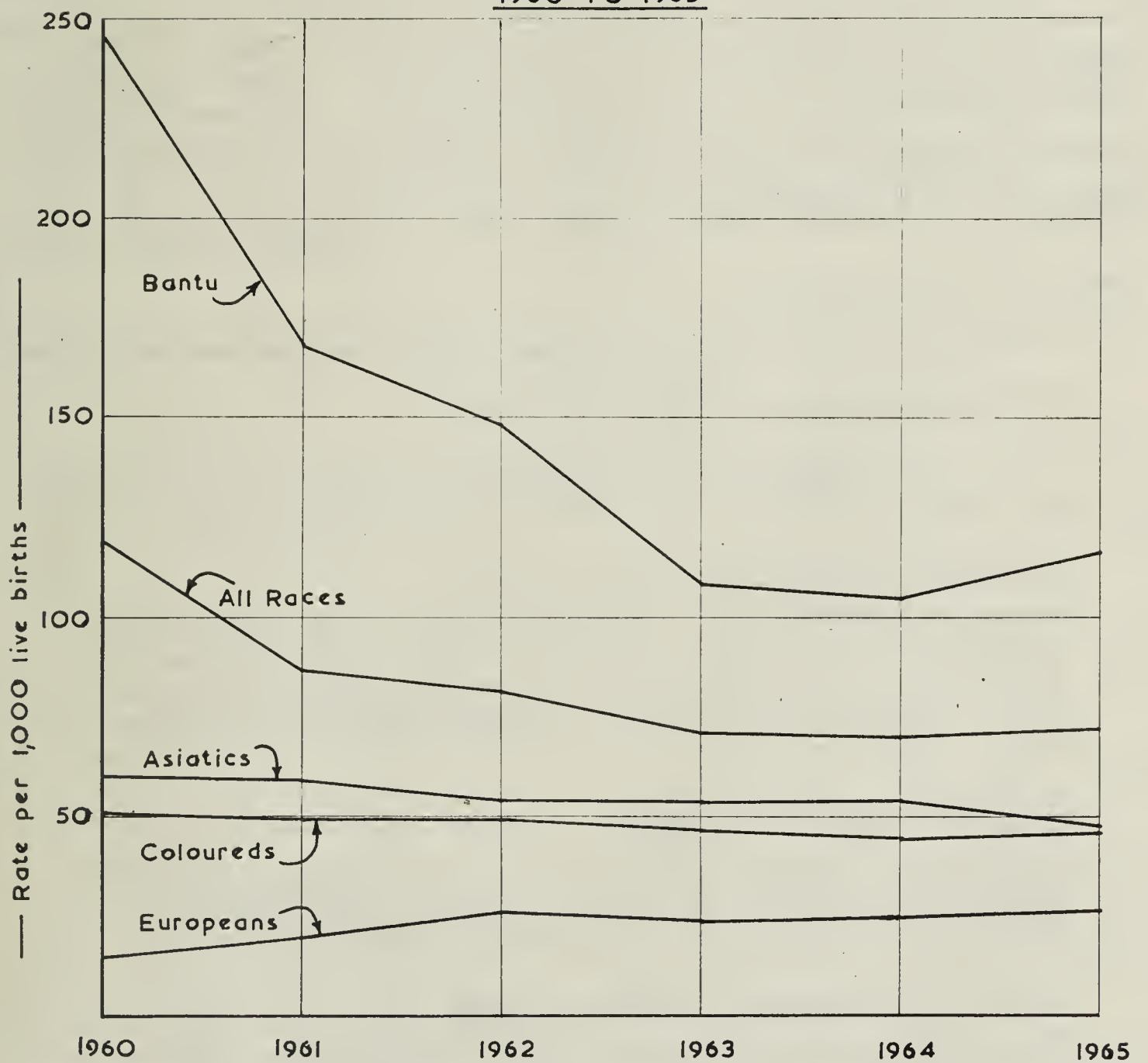
As indicated on the graph the European, Coloured and Asiatic infant mortality rates have remained almost constant over the past 6 years, while that of the Bantu has shown a marked decrease.

Pneumonia and enteritis, in equal proportions, rank as the highest individual causes of Coloured and Asiatic infant deaths, while enteritis accounts for the majority of Bantu infant deaths with pneumonia as the next common cause of death.

In order to lower the infant mortality rate advice on correct infant feeding and diet, and cleanliness in the preparation of artificial feeds is constantly impressed upon mothers at child health clinics. Where necessary food is provided free or at reduced cost in the form of dried skim milk, dried full cream milk and fresh milk.

INFANT MORTALITY RATES : DURBAN

1960 TO 1965



1. MATERNAL HEALTH

(a) Ante-Natal Clinics

An ante-natal service is provided by this Department for Whites, Coloureds and Asiatics who have arranged to be confined in their own homes by private midwives authorised to practise within the Durban Municipal area. These facilities are not required for Bantu as there are no longer any authorised private Bantu midwives listed, extensive use being made of the facilities provided by the Provincial Hospital services. However, post-natal visits are undertaken by the Health Visitors on the staff of this Department who follow up birth notifications.

The details of attendances at the City Health Department ante-natal clinics, the number of clinic sessions, and ante-natal and post-natal visits are shown below:-

	E	C	B	A	Total
Number of Ante-natal Clinic Sessions	12	12	-	98	122
Number of attendances	57	18	-	2,198	2,273
Number of ante-natal visits	201	1	684	318	1,204
Number of post-natal visits	8	5	-	970	983

(b) Facilities for Maternity Cases

Accommodation for maternity cases is provided by the following Provincial and Private Hospitals:-

European Maternity Beds

Addington Hospital (Provincial) and the Mothers' Hospital (Private) include District Midwifery Services, while maternity cases are also accepted at St. Augustine's Hospital and Parklands Nursing Home (both Private)

Coloured Maternity Beds

Addington Hospital (Provincial) includes a District Midwifery Service while St. Aidan's and McCord's Hospitals (Private) also accept maternity cases.

Bantu and Asiatic Maternity Beds

King Edward VIII Hospital (Provincial) and McCord's Zulu Hospital (Private) include a District Midwifery Service while the Provincial Polyclinic at kwaMashu Bantu Township conducts a District Midwifery Service.

The following table shows details of maternity beds available for each racial group:-

Institutions	Maternity Beds			
	E	C	B and A	Total
Provincial Hospitals				
Addington Hospital	50	30	-	80
King Edward VIII Hospital	-	-	210	210
Private Hospitals	E	C	B and A	Total
St. Aidan's Hospital	-	-	30	30
St. Augustine's Hospital	30	-	-	30
McCord's Zulu Hospital	-	-	33	33
Mothers' Hospital	46	-	-	46
Parklands Nursing Home	20	-	-	20
Totals	146	30	273	449

(c) Supervision of Midwives

One White Health Visitor supervises the persons listed to practise midwifery privately within the Durban Municipal area. The equipment and registers of the certificated and non-certificated White and Coloured midwives are examined every three months, and those of the non-certificated Asiatic midwives every month. All notified cases of puerperal sepsis, ophthalmia neonatorum and stillbirths are investigated.

Details of supervision of midwives and confinements attended are shown in the following table :-

Details	E	C	B	A	Total
Certificated midwives on list	3	3	-	-	6
Confinements attended	74	12	-	-	86
Non-certificated midwives on list	-	3	-	82	85
Confinements attended	-	12	-	942	954
Midwives' appliances examined	4	11	-	727	742
Midwives' dressings sterilised	2	18	-	1,420	1,440
Visits to Midwives at home	-	-	-	166	166
Warnings issued for not complying with regulations	-	-	-	9	9

(d) Number of Confinements conducted by Midwives only
(including Midwives employed by Provincial Administration)

Midwives	E	C	B	A	Total
Certificated	86	233	1,123	1,395	2,837
Non-certificated	-	12	15	1,003	1,030
Totals	86	245	1,138	2,398	3,867

(e) The following is a brief report by the part-time Medical Specialist in charge of ante-natal clinics (Dr. L. Raftery, F.R.C.O.G., M.M.S.A., M.R.C.S.(Eng.), L.R.C.P.(Lond)).

"The Department provides an ante-natal clinic for European and Coloured expectant mothers once a month at Old Fort Place. These mothers are going to be delivered in their own homes by midwives and the clinics serve a valuable service for both the patients and the midwives, in that any abnormalities in the general or the obstetric conditions of the patients can be observed and corrected, making a home delivery safe, or in some cases conditions are observed which render it unsafe for the mother to have a midwife delivery and arrangements are then made for the mothers to be placed under the care of their family doctors or a hospital. We are able to do estimations of the blood pictures of these patients and we are able to correct anaemias.

Twice a week ante-natal clinics are held at Lancers Road where over 2,000 Asiatic patients are seen, and these clinics serve a vitally important function in that, because they have to attend the Clinic to book a midwife for their delivery, these Indian mothers thereby get medical examination which they would not ordinarily receive. The poor financial income of so many of these families results in a great deal of malnutrition and anaemia, which we are able to correct by our iron medicines or by referring the patients to hospital for blood build-up before delivery. Here too the recognition and correction of obstetric abnormalities must result in much safer deliveries for both mother and child.

There is a good relationship between our clinics and the midwives and between the Clinics and the Durban private practitioners and the hospitals.

A large part of the credit for the efficient and pleasant functioning of these services must be given to the Health Visitors and the Health Assistants of the Department, who always are welcoming to the mothers and never hesitate to go out of their way and even out of their duty hours to ensure the welfare of the mothers.

Although the system of the Asiatic mothers being delivered at home by semi-trained midwives is not ideal, it is still an essential public service until the hospitals can offer complete midwifery coverage for the vast number of Indian maternity cases and in this respect the Durban City Health Department is contributing a very valuable service."

(f) Exfoliative Cytology

A scheme for the provision of facilities for the early detection of cancer of the female genital tract was approved by the City Council in September 1962 for a trial period of two years.

This scheme included the provision of laboratory facilities for the cytological examination of cervical and

vaginal smears and the necessary staff, viz. a consultant in exfoliative cytology, a part-time cyto-technologist and a full-time laboratory assistant.

Full details of the scheme were circulated to all private medical practitioners in Durban offering facilities for female genital exfoliative cytology at no extra cost to their private patients.

In January 1963 the scheme was put into operation and each year has shown an increase in the number of patients examined and consequently the number of early cases of cancer detected.

On the 29th September, 1964, the City Council authorised the continuation of this service on a permanent basis.

The scheme, which applies only to private patients resident in Durban, operates as follows:-

- (a) Cervical and vaginal smears are submitted to the laboratory by the private medical practitioner together with a clinical report on the patient.
- (b) The laboratory findings and consultant's reports are submitted to the Medical Officer of Health who records the statistics and furnishes the medical practitioners concerned with the respective reports.
- (c) All suspicious or malignant reports are followed up and the results of the further investigations recorded for statistical purposes.

The following table shows the total number of exfoliative cytology examinations undertaken since the inception of this scheme, with the number of examinations repeated because of suspicious or malignancy reports and the number of cases confirmed to be malignant.

Year	Examinations	Repeat Examinations	Confirmed Malignant
1963	2,614	34	12
1964	2,915	324	18
1965	3,807	590	25
Total	9,336	848	55

The following table shows the number of exfoliative cytology examinations undertaken during 1965 according to race and age groups. The figures appearing in brackets are the number of examinations repeated because of abnormal or suspect malignant smears, and the number of cases of malignancy confirmed by histological examination of biopsy specimens appear in the final column.

Age Group in years	Examinations with repeat examin- ations in brackets					Confirmed Malignant
	E	C	B	A	Total	
Under 30	754 (88)	6 (1)	6 (-)	54 (2)	820 (91)	-
30 - 39	1,074 (192)	10 (2)	3 (-)	121 (8)	1,208 (202)	5
40 - 49	900 (171)	7 (-)	1 (-)	69 (6)	977 (177)	9
50 - 59	382 (74)	3 (-)	- (-)	23 (1)	408 (75)	6
Over 60	147 (17)	- (-)	- (-)	5 (-)	152 (17)	5
Not stated	202 (22)	- (-)	1 (-)	39 (6)	242 (28)	-
Totals	3,459 (564)	26 (3)	11 (-)	311 (23)	3,807 (590)	25

With the increasing awareness of the necessity for every woman, especially over the age of 30 years, to undergo a regular annual medical examination including genital exfoliative cytology this service is rapidly expanding and the stage may soon be reached when increased facilities will be needed to cope with the increasing volume of work.

2. CHILD HEALTH

(a) Child Health Clinics

Regular maternal and child health clinic sessions for all races were held at 34 different venues in the City, in Municipal clinics or in halls hired for this purpose. The number of clinic sessions per week varied from daily to once weekly, depending on the density of the population in the particular area.

Chatsworth and Merebank Indian Townships: The Municipal clinics in Chatsworth and Merebank opened on three days a week instead of two from February 1965, with 5 clinic sessions per week, and clinic attendance figures showed a steady increase commensurate with the development of these Indian townships.

Cato Manor: With the fall in Bantu attendances at the Cato Manor Municipal clinic, due to the movement of Bantu from this area to kwaMashu Bantu Township, Bantu clinic sessions were reduced to one afternoon session per week. The weekly morning and afternoon clinic sessions for Asiatics at Cato Manor are, however, still in operation.

kwaMashu: Clinic attendances at both the Municipal clinics at kwaMashu Bantu Township increased with the expansion of this Township.

All Clinics: Details of clinic sessions and attendances for each clinic are shown in the following tables :-

European Clinics	Sessions	Attendances
Fynnlands	51	4,111
Wentworth	54	2,867
Montclair	53	4,181
Woodlands	56	2,566
Sea View	48	3,376
Hillary	26	1,198
Bellair	26	1,164
West Ridge	52	1,561
Gale Street	154	11,232
Stella	11	472
Overport	51	3,821
Point	48	1,975
Greyville	54	4,434
Morningside	53	4,671
Sherwood	48	1,101
Virginia	53	2,837
Red Hill	24	1,734
Durban North (2 clinics)	51	2,562
Old Fort Place	130	1,629
Totals	1,043	57,492

Coloured Clinics	Sessions	Attendances
Gale Street	110	8,772
Mayville	54	8,827
Sparks Estate	155	13,853
Wentworth Government Village	48	6,923
Austerville	51	11,077
Greenwood Park (Red Hill)	30	4,051
Totals	448	53,503

Bantu Clinics	Sessions	Attendances
kwaMashu (Rydalvale)	306	72,458
kwaMashu (Goodwin)	251	54,671
Lamont	406	31,962
Umlazi Glebe	153	19,727
Chesterville	205	22,931
Cato Manor	96	2,393
City (Lancers Road)	152	24,098
Totals	1,569	228,240

Asiatic Clinics	Sessions	Attendances
Chatsworth	247	45,589
Merebank	258	30,199
Clairwood	218	35,371
Mayville	141	36,476
Cato Manor	103	14,628
Clare Estate	53	4,113
Magazine Barracks	142	9,147
City (Lancers Road)	358	56,388
Totals	1,520	231,911

Details showing the total number of clinic sessions and attendances as well as the number of new cases attending, and the number of patients examined by the clinical medical officers at child health clinics during the year, are set out as under :-

	E	C	B	A	Total
Clinic sessions	1,043	448	1,569	1,520	4,580
Clinic attendances	57,492	53,503	228,240	231,911	571,146
New cases	4,173	2,648	17,856	17,715	42,392
Cases seen by doctor	5,243	3,324	4,209	5,691	18,467

(b) Home Visiting

All mothers who were not confined by private medical practitioners were visited at home shortly after discharge from hospital or after termination of the midwives' services.

At the request of the Durban Child Welfare Society "protected" infants were visited regularly and monthly reports submitted until finality was reached in regard to adoption. Cases of suspected neglect of infants and pre-school children were also investigated and reports submitted.

More intensive routine home visiting was conducted during the year with an increase in the number of home visits, compared to the previous year as illustrated in the table below:-

Home Visits	E	C	B	A	Total 1965	Total 1964
First visit	2,507	5,644	10,540	14,383	33,074	25,401
Re-visit	6,449	1,139	2,943	1,891	12,422	10,152
Total	8,956	6,783	13,483	16,274	45,496	35,553

(c) Senior Clinical Medical Officer's Report:

The Senior Clinical Medical Officer, Dr. H.A.B. Pletts, comments as follows:-

"This year started with the most welcome change in the Department of Child Health in the form of the appointment of a second full-time medical officer. The need for this has been felt for some time past, and its fulfilment has resulted in a much fuller medical cover at busy clinics and a wider one in the extension of services to clinics where there was previously no doctor in attendance at all.

This has meant a more efficient overall immunisation cover and has allowed of full immunisation procedures in areas where they had previously been restricted for reasons of caution on account of their possible untoward reactions.

Dr. Elizabeth Fisher assumed this appointment in January and has enabled us to provide an extra medically-covered whole day each at two of the busy Asiatic clinics, Merebank and Clairwood; two Coloured clinics, Sparks Estate and Austerville; and a once-

weekly instead of alternate-weekly morning at Montclair clinic for Europeans.

The year has been comparatively uneventful clinically. Improvement in the staff position, and consequently home-visiting, has seemed to result in preventing too wide a spread of some of the infective diseases, and consequently gastro-enteritis was seen comparatively rarely to affect whole families. These staff increases have also brought the number of case interviews at the non-European clinics a little nearer that which can be efficiently accomplished, though the Health Visitors are still seeing two to three times as many cases in a given time as is considered optimal in overseas clinics.

However, allowing for the differences in our local conditions the present position is reasonable for the time being.

The growth of our City, persistent, and sometimes precipitate is an ever present challenge to us all."

(d) State Subsidised Milk Powder Scheme

The distribution of State subsidised dried skim milk at child health clinics for the prevention of kwashiorkor was commenced during November 1961, 31,000 lbs being distributed during the year 1962. This scheme proved to be so successful in the prevention of kwashiorkor and other forms of malnutrition, that the scheme was further expanded, the amount of skim milk powder distributed during 1965 being 170,969 lbs.

During the year 3 Coloured, 18 Asiatic, and 659 Bantu cases of kwashiorkor were notified, 95 less cases than the total for the year 1964. These cases were investigated and only 35% proved to be resident within the Durban area; 35% were found on investigation to be resident outside Durban and 30% could not be traced because of fictitious, inaccurate or temporary addresses. Regarding this latter group it has been the experience of this Department that where a case cannot be traced it is more than likely to be resident outside the Durban area.

Differing criteria and divergencies of opinion in making the diagnosis of kwashiorkor served to further complicate the accuracy of the estimated incidence of kwashiorkor within the City.

Almost without fail it was found that cases from the City area had never attended the child health clinics or at the best a few who had attended at some stage were found to be very irregular attenders. Little evidence of malnutrition was seen in regular clinic attenders.

Instruction on the causes of kwashiorkor and its prevention was given to all cases that were traced and parents encouraged to attend regularly at the clinics where dried skim milk powder was provided. The investigation of these cases resulted in the discovery of other incipient cases of kwashiorkor whose health improved considerably after attending clinics and receiving milk powder.

A study of reports on investigations, carried

out during the year, appears to indicate that poverty, neglect and ignorance play equal parts in the development of kwashiorkor.

The investigation of notified cases of kwashiorkor and the distribution of State subsidised dried skim milk together with advice and health education given at child health clinics have undoubtedly played a major role in greatly reducing the incidence of this disease and the infant mortality rate in the City.

The number of deaths due to malnutrition, including kwashiorkor recorded in the under 5 years age group since 1960, is shown in the following table :-

Year	E	C	B	A	Total
1960	-	1	121	2	124
1961	-	2	109	17	128
1962	-	2	102	8	112
1963	-	2	83	4	89
1964	-	1	78	7	86
1965	-	-	72	3	75

(e) Nursery Schools, Creches and Play Centres

During the current year one new European Play Centre was established and registered with the Department of Social Welfare after the public health requirements of this Department had been met.

Numerous visits were made to existing Nursery Schools, creches and play centres, to carry out routine inspections and to immunise children where necessary.

(f) Lectures and Demonstrations

Lectures on the organisation and conduct of maternal and child health services were given to a Women's Institute Group, a Social Science Student Group and a Medical Student Group whilst Senior Nursing Students from the Natal University visited a clinic in operation and showed great interest in the lecture which followed on clinic procedure.

(g) Mothercraft Bursary

The 1964/1965 Mothercraft Bursary, which is awarded annually by the Durban City Council was not applied for this year.

(h) Medal Awards to Student Nurses

The following nurses were selected to receive the Durban City Council's awards for the most outstanding nurses undergoing training at hospitals in the City.

Addington Hospital

Miss Valerie Palmer-Owen : Gold Medal
Miss Marian Jean Bagnall : Silver Medal

St. Augustine's Hospital

Miss Christine Baillie-Searle : Stainless Steel
Fob Watch

Entabeni Hospital

Miss Cynthia Whittaker

: Rolled Gold Fob
Watch

Miss Ann Telford

: Stainless Steel
Fob Watch

King Edward VIII Hospital

Miss Irene Rini

: Rolled Gold Fob
Watch

Miss Patricia Mesha

: Stainless Steel
Fob Watch

McCord's Zulu Hospital

Miss Victoria Tire

: Stainless Steel
Watch

St. Aidan's Hospital

The Stainless Steel Fob Watch was not awarded
during 1965.

IX. HEALTH EDUCATION

The medical, nursing and health inspectorate personnel of this Department all undertake a certain amount of health education as part of their routine duties.

Statements are issued to the press and radio on topical public health matters, and talks are given by the Medical Officer of Health or his Deputy and Assistants. In advising mothers on infant feeding and other child health problems, Clinical Medical Officers undertake health education while Venereal Disease and Tuberculosis Clinics are not only treatment centres but are also venues for the dissemination of health education on the prevention of these diseases. Health Visitors and Clinic Sisters act in a capacity which is essentially health education and Health Inspectors are continuously faced with the importance of advising and educating the public on health matters.

However, in view of the importance of health education in the promotion of public health this Department also has a full-time fully equipped Health Education Section, controlled by a Health Educator and staffed with a Technician, two European General Assistants, and specially selected and departmentally trained Coloured, Indian and Bantu lecturers.

This Section not only undertakes routine health education covering a variety of topics, for all sections of the population, but is often used as a mobile striking force on any front of a health campaign, ranging from support of a smallpox vaccination campaign, in the face of a threatened epidemic, by gaining the full co-operation of the local population to attend for vaccination, using appropriate health education techniques, to kitchen hygiene in hotels and restaurants.

The following report on the activities of the Health Education Section for the year has been submitted by the Health Educator together with her comments:-

In the annual report of 1943 there appeared the first brief report on Health Education as a sectional activity: a few sentences sufficed to report on the one Bantu lecturer with no mechanical equipment and only two teaching subjects, namely, tuberculosis and venereal diseases. Since then the strenuous years of unrelenting toil, particularly amongst the Bantu, have had their significant harvests - significant because, for the greater portion of that time, there were only four Bantu and two Asiatic lecturers on the staff of the Health Education Section, the Coloured lecturer being a recent appointment. Of results, some were dramatic, not a few phenomenal in their widespread influence, but for the most part it has been the patient teaching, persistent discussion and new presentations of old subjects which has helped to change, in many ways, the thinking and way of life of the non-European in relation to health.

1. WHITE COMMUNITY

Europeans, with the exception of the European schools, have not been largely catered for in the past, because of the absence of a suitable venue such as a departmental hall. The Health Education Centre in the new building with its auditorium designed for visual aid presentations, film projections, and with a seating capacity of 250 provides everything required but the audience! The problem has been

how to get people there. As with all new ventures it had the flavour of pioneering. It was somewhat dismaying, when "peddling" the idea of a morning's health programme, to find that for many it conjured up a dreary picture of incredible, if informative, dullness. Groups were frankly not very interested. The proposed programme had to be "sold" with almost as much glamour and promise of fascinating presentations such as one encounters in commercial advertising. It was realised that if once a group was gathered, whether of hoteliers, women's institutes, church groups or apprentices and there was a failure to make an impact, there would be no return visits. Balanced programmes were therefore prepared with fastidious care including elements of surprise. These included live demonstrations, e.g. a cage of cockroaches! electrically controlled models, 16 m.m. sound films and speakers who plentifully illustrated their talks with the craft of the appropriate anecdote taken from actual experience in the field, all with the aim of precluding any criticism of dullness. If there is one thing health education can never survive it is the blight of dullness! Results can best be judged by the fact that groups booked second and even third visits when totally new programmes were presented.

It must be acknowledged that organising group sessions is undeniably time consuming. From the time the project is first introduced to the relevant executive member of the group, to the occasion when the date for the programme is decided upon, and notice of the event circulated to members, there has to be persistent follow-up work. Subsequent visits to the Department require a little less pursuing on the part of the health educator. Sessions vary in duration from 1½ to 3½ hours including discussions. Initially it was stipulated that programmes could not be presented for less than 30 members. Groups on their first visits ranged from 30 to 50 in number, but on second visits institutes and church groups endeavoured to link with other groups so that only recently 120 women united to attend a health education programme.

Programmes for licensed hoteliers were an innovation. A 2½-hour session included a talk by a Medical Officer on "food poisoning", how to prevent it and what steps to take should there be an outbreak in the hotel. Specimens of contaminated meat were exhibited by the Department's Veterinary Officer who spoke also of the need for meticulous hygiene in the handling of dairy products. The importance of correct food storage and refrigeration was handled by a senior health inspector as was the problem of pest control. A health educator demonstrated the unhygienic habits of non-European food handlers, knowledge of which had been acquired during previous programmes of health education at hotels throughout the City, and highlighted the common effects of lack of adequate supervision in food eating establishments.

(a) Health Education Programmes in the Auditorium

(i) Women's Groups

Seventeen sessions were held for Women's Groups at which three of the following subjects were the topics of 16 m.m. sound films.

"Food Poisoning",
"Lung Cancer in Relation to Smoking",
"Bilharzia",
"Nutrition",
"Alcoholism",
"Mental Health".

It is interesting to note that the film subject which often made the deepest impression and evoked most comment was that on "Mental Health". Enlightened thinking by the public on this subject appears to be mounting, a most satisfying state in view of the need for more promotional action in mental health promotion.

In addition to these films two lecture demonstrations were given at each session, viz:

One of a model used in Bantu and Indian health education to show the form of presentation and impact of visual teaching on the non-European mind of such subjects as "diphtheria" and "nutrition", etc. by Health Education staff.

A "cockroach" or "mosquito" (alive!) demonstration with relevant teaching given by a Senior Health Inspector, always called forth many questions and discussion from the audience.

Or a demonstration given by a Senior Health Inspector of specimens of condemned tins of food and packages of foodstuffs together with a talk freely spiced with illustrations of actual cases of food poisoning in homes and eating establishments.

A talk was also given by a Medical Officer on potentially poisonous substances found in the home, and the precautions required for the prevention of accidental poisoning.

(ii) Licensed Hoteliers Groups

Two groups attended programmes on food poisoning, food handling hygiene and food preservation.

(iii) Miscellaneous Groups

Ten groups attended programmes including the following subjects:-

"The Rat Problem",
"The Human Blood Fluke" (Bilharzia),
"Rescue Breathing" - Mouth-to-mouth resuscitation demonstrations, using an apparatus procured for this purpose by the Department.

Provision is, of course, made for departmental staff of all sections to view films of practical or educational interest in relation to public health.

(b) At European Schools

The following table shows the Health Education programmes held during the year at European schools :-

Subject	Sessions	Attendances
"Smoking and Lung Cancer" - 16 m.m. sound film and talk	16	3,188
"Bilharzia - Cause and Prevention" - 16 m.m. sound film and talk	2	590
"Mosquitoes and Disease" - 16 m.m. sound film and talk	3	300
Totals	21	4,078

2. COLOURED COMMUNITY

(i) Factories

Owing to a break of two months without a Coloured lecturer and the training of a new incumbent, less than the normal work quota could be undertaken, especially among factories. Last year the subject throughout factories was "tuberculosis"; this year "venereal diseases" and "nutrition" were the subjects presented. This community when infected by venereal diseases is unwilling to disclose the identity of contacts. This dangerous withholding of information was particularly stressed in the 21 sessions to 1,622 factory employees, many of whom, male and female, discussed their fears in this matter with the lecturer. With the aid of a demonstration model, the importance of cooking balanced meals for the family and the possibility of obtaining nutritious meals by using the cheaper cuts of meat and fish, and by making more use of legumes proved to be of special interest to 357 factory workers who attended this lecture.

(ii) Schools

The current year's programme was on the relation of cigarette smoking to lung cancer. A 16 m.m. sound film entitled "This is Your Lung" was the medium employed. There were 27 sessions for 4,651 scholars.

(iii) Immunisation

In housing schemes most of the lecturer's work is done by the house-to-house method. Unlike the Bantu and Asiatics, the Coloured housewife does not readily respond to loudspeaker or loudhailer talks in the street. The loudspeaker public address system on the Health Education van, although powerful, can seldom compete with the wireless which in most housing scheme homes is kept "full on". In talks on the prevention of infectious diseases, "poliomyelitis" was given priority and the number of talks given was 1,113. This represents a considerable amount of activity all of which, by its very nature, was done on foot. Talks numbering 876 covered the subjects of diphtheria and smallpox.

(iv) General

Other routine work in shack areas and housing schemes is reflected in the following table:

Subject	Number of Talks
"Nutrition"	727
"Venereal Diseases"	211
"Tuberculosis"	140
"Maternal and Child Welfare"	59
Total	1,137

3. ASIATIC COMMUNITY

(i) General

With an ever increasing Asiatic population and the rapidly expanding new townships for this community, there are many who have not hitherto received specific health teaching and the picture for the year must be considered in the light of there being four lecturers for a population of 250,531, pursuing house-to-house programmes. Asiatic schools this year were therefore almost disregarded in the year's programme. The statistical picture given represents only a portion of the City's schools, the residue being left untouched because of the problem of obtaining suitable trainees to swell the rank of lecturers.

(ii) Schools

The following table reflects the work undertaken at Asiatic schools :-

Subject	Schools	Sessions	Attendances
"Nutrition" with model demonstrations	36	84	6,886
"Bilharzia Prevention"	9	26	1,226
Film lectures on "Typhoid" and the "Prevention of Food Poisoning"	2	5	255
"This is Your Lung" - film (Smoking and Lung Cancer)	2	2	157
Totals	49	117	8,524

(iii) Municipal Housing Schemes

Under the term "Maternity and Family Welfare" 15,057 talks were given on foot from house to house and flat to flat, the aim being to ascertain whether susceptible age groups had been fully immunised against poliomyelitis, diphtheria/tetanus/whooping cough and smallpox. Other domestic problems were dealt with including nutrition, and mothers were persistently urged to take their children to child health clinics for advice and immunisation.

Campaigns in four Asiatic areas supported the mobile immunisation clinic and accounted for 1,266 talks on the prevention of poliomyelitis by immunisation, and in other city and shack areas a further 1,282 talks were given on this subject.

Other routine subjects throughout the City and Asiatic shack areas are indicated overleaf :-

Subject	Group Talks	Loudspeaker Van Talks
Smallpox vaccination	957	403
Diphtheria immunisation	227	104
Nutrition	208	60
Venereal Diseases	188	

(iv) Factories

The subject of "food poisoning" was dealt with during 11 sessions at a confectionery factory, using 16 m.m. sound film and lectures to a total attendance of 357 employees, and a further 4 sessions at a food preparation establishment following a food poisoning outbreak traced to food prepared therein.

4. BANTU COMMUNITY

There are large groups in the above community requiring health education programmes who do not exist in significant numbers in the other racial groups -

- (a) domestic servants; (b) male hostel residents and
- (c) beer hall habitués.

(a) Domestic Servants

The subject chosen for this year was "venereal diseases". It was also chosen for senior school children because, at a meeting of Bantu school principals, there was deep lamentation at the further breakdown of morals and social behaviour in a much younger age group (male/female) than formerly, i.e. school children. It is therefore not by accident that the statistical picture is crowned with the highest number (4,354 lectures/talks) for the subject "venereal diseases". Of this number 2,146 talks were given over the loudspeaker van to domestics in European residential areas during their lunch hour breaks.

(b) Municipal Hostels (Male)

Hostels are only visited on the "occasional" programmes, and 897 talks with visual aids covered subjects as shown below :-

Subject	Number of Talks
"Nutrition"	637
"Tuberculosis"	117
"Venereal Diseases"	136
"Kwashiorkor"	7
Total	897

(c) Municipal Beer Halls

At these centres the visits are "snatched" during afternoons when the full day's programmes in townships are interrupted for this purpose. The most pressing need amongst this group, largely from industry, is education on "nutrition". "tuberculosis" and "venereal diseases". The total number of talks given was 793 and covered the following subjects:-

Subject	Number of Talks
"Nutrition"	502
"Tuberculosis"	148
"Venereal Diseases"	143
Total	793

(d) Schools

One of the joys of Bantu school work is the pattern of continuity possible with captive audiences who have passed from year to year under the strong positive teaching of health education programmes as provided by this Department. None of the children is more appreciative and eager than the teachers! The following were the subjects for the year under review :-

"Food Poisoning"
 "Venereal Diseases" and
 "Bilharzia."

These subjects were dealt with through the medium of 16 m.m. sound film shows and lectures.

The reason for choosing "food poisoning" is worth a comment. It was based on a knowledge of the Bantu reaction to an outbreak of food poisoning in a township, in which over 20 children were taken ill. The Bantu Health Lecturers agreed that the residents of the township would corporately attribute the cause to "umthakhata". Here was that vital moment in time when children would be susceptible to teaching and it had to be grasped. The origin of the outbreak was traced to "vet koekies" made by an African woman and peddled to school children. The "koekies" had become contaminated by the fingers of her small child who, playing on the table where the cookies were made, left pus on the table from a septic sore. Who doesn't enjoy their own prophetic pronouncements being proved correct? The lecturers returned to base well pleased; all the school children and most of the teachers had originally firmly accepted the "umthakhata" theory. Thus in the days following there was in the school rooms a heavy pounding by a sea of facts on superstition and ignorance until the lecturers were well satisfied that the bacterial contamination aspect had come permanently to dwell in their thinking. Miles removed from the township, in three other townships, school children knew and recounted the story of the food poisoning outbreak with all its superstitious embellishments. They were then also visited by the lecturers and the film. The following table summarises the work undertaken at Bantu schools :-

Subjects	Sessions	Attendances
"Food Poisoning"	86	7,760
"Venereal Diseases" - 16 m.m. sound film and lecture	61	5,135
"Bilharzia" - lecture illustrated with slides	52	3,476
Total	199	16,371

(e) Municipal Townships

A statistical analysis of the loudspeaker talks from the Health Education van, loudhailer talks by lecturers on foot, and house-to-house lectures/talks in the four Bantu townships, is given hereunder and does not include 16 m.m. sound film and lecture/demonstrations at Bantu schools:

Subjects	Bantu Townships			
	kwaMashu	Lamont-ville	Glebe-lands	Chester-ville
* Maternal and Family Health	1,234	231	-	-
Tuberculosis	981	666	78	251
Poliomyelitis	257	444	1,991	45
** Rabies	682	-	-	-
Kwashiorkor	484	168	56	113
Gastro Enteritis	425	152	62	-
Nutrition	265	221	-	108
Smallpox	92	-	164	41
Venereal Diseases	79	6	-	13
Bilharzia	-	4	-	10
Total numbers of talks	4,499	1,892	2,351	581

Grand Total : 9,323 talks

* Maternal and Family Health is strictly a house-to-house subject which includes investigation of problems on the domestic scene and frequently combines social as well as educational work. It also deals with clinic attendances, regulation of family size, immunisation and nutrition.

** Rabies - Consequent upon an outbreak near a Bantu township talks on the importance of inoculation of dogs against rabies were given in preparation for the visit of the staff of the State Veterinary Surgeon who were hard pressed to inoculate all the 1,652 dogs brought forward.

(f) Bantu Administration Department

This registration centre is a vital point of contact with Bantu men and women of all ages who might never again come under the sound of health education because of the nature of their employment. The four subjects are applied in accordance with what is deemed by experience to be the greatest need; for instance, for domestic servants, "venereal diseases" and "social behaviour" were the subjects, while for factory workers living in hostels and cooking for themselves, "nutrition" was dealt with.

The number of talks are summarised below:-

Subjects	Number of talks
Venereal Diseases	1,687
Tuberculosis	1,188
Smallpox	771
Nutrition	691
Total	4,337

(g) Youth Clubs in Townships

Fourteen sessions using 16 m.m. sound film and lecture/demonstrations on "venereal diseases", "tuberculosis", "nutrition" and "food poisoning" were given to youths staying at youth clubs while awaiting employment.

(h) Radio Bantu

"How Often Have You Risked Your Child's Life Today"

Under the above title the subject, "Accidental Household Poisoning", new to Bantu listeners, was cast Radio Bantu by lecturers in dialogue form. It caused much comment throughout the local townships. For example, many Bantu declared they were quite unaware that paraffin, if swallowed, could be so dangerous.

(i) Church Groups

Ten sessions using 16 m.m. sound film and model demonstrations were given on "venereal diseases" and "social behaviour", "food poisoning", "tuberculosis", "kwashiorkor" and "accidental household poisoning". Bantu women voted that the breakdown in moral behaviour in the earlier age group of their girls was due to the weakness of the parents and lack of discipline in the home.

(j) Factories

At a Confectionery Factory "food poisoning" was dealt with in 9 film sessions (indoors) and at miscellaneous factories "nutrition" was the subject of 6 model/demonstrations held indoors. In addition, at factory and compound outdoor areas, the subjects covered are as listed below:-

Subject	Sessions
Tuberculosis	172
Nutrition	311
Venereal Diseases	159
Total	642

(k) Seminar

A group conference on the Basic Principles of Supervision of Bantu under the aegis of the National Development and Management Foundation of South Africa was held at a local well known factory. Delegates from Pietermaritzburg and Durban attended. As on former occasions, the "Nutrition" theme was conducted by two of the Department's lecturers. One lectured on this subject with the aid of a demonstration model, while the other led the discussion which lasted two hours.

(l) Durban Chest Clinic

Once daily, Bantu patients awaiting X-ray examination at the Durban Chest Clinic are given a fully detailed account of pulmonary tuberculosis and instruction on its many facets, illustrated by means of a demonstration model. Strong teaching is given on the dangers of the customs of consulting an inyanga for treatment of this disease and grave warnings about the consequences of unauthorised interruption of treatment are clearly outlined.

5. CONCLUSION

Personal Identification

The question is often asked, "What is the secret of becoming a successful health educator?" While obviously there is no one secret, there is an indispensable requirement and that is that the educator must be willing to learn by self discipline and practice to identify himself in imagination, empathy and deep understanding with the individual or group to be educated; in the case of Bantu, Asiatic and Coloured peoples identification must mean "walking in their shoes".

X. HEALTH INSPECTION

STAFF

During the year there were a number of establishment increases, details of which are reflected in Chapter XV. A position of Senior Health Inspector was created for the prime purpose of co-ordinating the Health Inspectorate's food hygiene specialist commitments particularly in relation to new developments in the food marketing field, such as automatic vending by machine. To enable the Department to accelerate slum clearance under the Slums Amendment Act, 1963, authority was obtained to engage two wholetime health inspectors on this programme.

It had been decided earlier to engage the services of non-European health inspectors to serve the Indian and Bantu townships and a start was made by creating two positions for employment in the Chatsworth Indian Township, but difficulties were encountered in securing suitably qualified personnel. A course of study had been conducted by the M.L. Sultan Technical College and the Department was able during 1965 to appoint the first Indian Health Inspector. He is carrying out his duties under European supervision and is assisted by Health Assistants and labourers of the Indian race group.

INSPECTIONS

Arising from routine field programmes, complaints and licence applications, over 161,000 inspections were made by the District Sanitation division of the Health Inspectorate, as set out in the following classifications:-

Food-Handling Trades

Bakeries	487	Hotels (liquor licensed)	1,815
Boarding Houses	1,952	Milk Bars	125
Butchers	3,780	Offensive Trades	172
Dairies and Depots	3,453	Restaurants/Eating houses	6,621
Manufacturers	1,506	Tea Rooms	2,623
General/Fresh Produce Dealers	18,359	Sundry	2,162

Non-Food Trades

General Dealers	5,229	Lodging Houses/Flats	13,053
Hairdressers	1,294	Offensive Trades	1,389
Laundries/Dry-cleaners	1,292	Sundry	15,397

Residential and Miscellaneous

Barracks, Compounds	2,040	Dwellings	50,726
Sundry	27,643		

Arising from the above inspections it was found necessary to issue 10,893 personal notices, serve 3,509 documentary notices, despatch 1,857 letters and to institute legal proceedings in respect of 155 contraventions of the law. One case of interest was for obstructing a health inspector in the course of his duties. Several hearings took place and eventually the accused was found guilty. (A table of prosecutions will be found in Chapter XIV).

COMPLAINTS

In 1965 complaints totalling 3,607 were lodged by members of the public and various authorities on a large variety of nuisances, viz:

Animal keeping	3	Mosquitoes	613
Bugs	42	Offensive smells	207
Cockroaches	39	Poultry	57
Conservancy services	3	Refuse dumping	194
Drainage appurtenances	32	Refuse removals	5
Drainage, defective	378	Rodents	407
Fleas	15	Sanitary accommodation	38
Flies	289	Shacks, illegal	7
Food hygiene	27	Smoke/Air pollution	12
Food, unsound	12	Structural defects	128
Housing, illegal	8	Unclean conditions	354
Housing, overcrowded	39	Vacant land	598
Miscellaneous	99	Ventilation/lighting	1

Of the above complaints a few are worthy of comment: a lack of sanitary accommodation for the staff of a car conveying company; waste water nuisance from unauthorised hand laundry businesses in a Bantu location; the herding of goats at a Bantu village; the dumping of "fly-ash" from a power station; Coloured persons living under a bridge; illegal squatting and dumping of refuse on overgrown land at Maydon Wharf; sewer obstructions and surcharges; waste water problems from residential accommodation in non-sewered areas and fouling of a bus terminus area. Furthermore, problems were encountered regarding the conduct of a circus within a building; unsatisfactory conditions at the open-air circus site; fly development at a burnt-out warehouse; the establishment of an unauthorised refuse tipping site where offensive smells and fly breeding occurred; and the very unsatisfactory conditions which arose from a large number of hawkers taking up a fixed stand at a bus terminus and which were eliminated by levelling and hardening of the ground surface.

In addition a number of complaints lodged with the Department were found on investigation to be of no direct public health concern. Incidences during the year concerned swarming bees, flashing lights, snakes and monotonous food in hotels and so forth, which only goes to prove that the lot of a health inspector is not without its lighter moments.

LICENCES

(a) Applications

In accordance with the requirements of the Licences (Control) and Municipal Licences Ordinance, 1942, the licensing authority referred 3,172 applications for report on the public health implications. Over 500 "further" reports were also submitted.

(b) Residential Accommodation : Commercial Use

There would appear to be an increasing tendency to use residential accommodation for "business" purposes and this trend was amply demonstrated by an application for a gymnasium licence in a 16th floor flat in a modern block. Whilst it cannot be claimed that gymnasia, masseurs, manicurists, beauticians, dancing studios and the like in domestic buildings have a direct public health implication

it is nevertheless considered that these activities could conflict with the reasonable enjoyment of peace and quiet and in other respects not tend to preserve the character of home life which residents may feel entitled to expect. The matter was referred to the town planning authority, and the City Engineer indicated that the existing scheme was not entirely satisfactory in this context and that the subject would be re-examined when the Scheme is finalised.

PERMITS

In the twelve month period reports were lodged on 36 applications for Bantu housing permits; registration was granted to 31 mattress-makers and upholsterers, and permits were issued to 34 persons authorising the keeping of animals. An application to keep 3 horses was refused on the grounds that the stabling accommodation was in disrepair.

OFFENSIVE TRADES

During 1965 initial applications to conduct the following trades were approved, after consultation with the City Engineer -

Processing the products		Cement Works	2
of petroleum refining	5	Woolwashery	1
Paint Works	1	Dealing with bones,	
Soap Works	1	hoofs, etc.	2

Departmental representatives continued to serve on liaison committees with factory managements regarding routine pollution abatement measures at two chemical works, a whaling factory and two petroleum refineries.

LARGE GATHERINGS

Short-duration public functions held in accommodation not designed for the purpose inevitably gave rise to many public health problems. Not the least of these included the provision of adequate sanitary accommodation for the large number of patrons; means to avoid insanitary conditions; many aspects of food preparation, handling and preservation; and the difficulty in making provision for the sanitising of equipment, eating utensils, cutlery and the like. During the year the "Ideal Homes" exhibition was held at a wool warehouse, and the Air Pageant at Virginia Airport. A number of other large gatherings such as horse races during the July season were closely supervised from a food hygiene viewpoint.

WATER

The Department has continued its programme of weekly sampling of the public water supplies from various points in the City for chemical and bacteriological examinations. These samples are taken in addition to the routine tests made by the City Engineer.

FOOD

The Health Inspectorate maintained a close watch over all aspects of food manufacture, preservation, preparation, processing, storage, marketing and delivery. Details of the more important aspects of the Department's activities, programmes and problems are recorded overleaf:-

(a) Food, Drugs and Disinfectants Act, 1929

With the increase in the size of the City and the ever increasing need to maintain a food sampling programme commensurate with the magnitude of this major seaport, manufacturing centre and holiday resort it was considered that the quota of free samples was far below what was reasonably necessary in the circumstances, and the State Health Department was accordingly requested to give serious consideration to a reappraisal of the position. It was therefore pleasing to record that the Minister of Health in Notice No. 569 dated 30th April 1965 exercised his authority by increasing the annual number of samples from 352 to 700. The City Council also has a contract with a firm of analysts covering the examination of a maximum of 300 samples per annum. Particulars of the 805 commodities sampled and the results are as follows :-

Commodity	No.	Result	Action
Baking powder	4	Satisfactory	R25.00 recovered in fines.
Boerewors	56	2 Unsatisfactory	
Brawn	3	Satisfactory	
Cheese Spread	1	"	
Chilli Relish	2	"	No action taken for reasons referred to below.
Chilli Sauce	1	"	
Chutney	5	"	
Cinamon	2	"	
Cloves	4	"	
Cocoa	2	"	
Coffee	3	"	
Coffee Essence	3	"	
Coffee Instant	2	"	
Coffee and Chicory Essence	2	"	
Cooking Fat	8	"	
Cooking Oil	26	"	
Cream	36	"	
Curry Powder	12	9 Unsatisfactory	
Custard Powder	3	Satisfactory	
Dates	3	"	
Dessicated Cocoanut	4	"	
Dried Figs	2	"	
Dried Fruit	1	"	
Dried Prunes	1	"	
Dripping	13	"	
Fig Preserve	1	"	
Fish Cakes	3	"	
Fruit Cordial	1	"	
Ghee	5	"	
Ginger	6	1 Unsatisfactory	R15.00 recovered in fines
Glace cherries	4	Satisfactory	R15.00 recovered in fines
Glucose Barley			
Fruits	1	"	
Golden Syrup	2	"	
Granadilla Squash	1	"	
Ham and Veal Loaf	1	"	
Honey	36	1 Unsatisfactory	
Ice Cream	76	1 Unsatisfactory	R15.00 recovered in fines.

Commodity	No.	Result	Action
Indian Sweetmeats	6	Satisfactory	
Instant Postum	1	"	
Jelly	4	"	
Lard	3	"	
Lemon Curd	1	"	
Lime Cordial	1	"	
Lunch Loaf	1	"	
Malt Extract	1	"	
Margarine	8	"	
Mayonnaise	6	1 Unsatisfactory	No action as time limit had expired.
Mealie Meal	5	Satisfactory	
Mealie Rice	1	"	
Meat Extract	1	"	
Melon Preserve	1	"	
Milk	165	1 Unsatisfactory	R10.00 recovered in fines
Minced Meat	120	5 Unsatisfactory	R115.00 recovered in fines
Mustard	3	Satisfactory	
Mustard Cooking Oil	1	"	
Orange Juice	3	1 Unsatisfactory	No action as the 60 day time limit had expired
Orange Squash	7	5 Unsatisfactory	R30.00 recovered in fines. In 3 instances no action was taken as the time limit had expired.
Pea Flour	1	Satisfactory	
Peanut Butter	1	"	
Pepper	3	"	
Polony	8	"	
Raisins	3	"	
Raspberry Cordial	2	"	
Rice	1		Sample contaminated by "carbon black"; relevant stocks subsequently cleaned.
Salt	8	Satisfactory	
Sandwich Spread	1	"	
Sauce	2	"	
Sauce, Tomato	2	"	
Sauce, Worcestershire	5	1 Unsatisfactory	No action as the time limit had expired
Sausages	71	3 Unsatisfactory	R34.00 recovered in fines
Spice (Mixed)	1	Satisfactory	
Strawberry Cordial	2	"	
Sugar (Brown)	6	"	
Sultanas	3	"	
Sweets	4	"	
Turkish Delight	1	"	
Vanilla Essence	1	"	
Vegetable and Meat Extract	1	"	
Vinegar	2	"	

With regard to the curry powders examined, it was found that they all contained a colouring substance, Orange SS, which is not permitted although allowed in other foodstuffs. In view of the fact it is common practice locally to add this colouring substance the matter was taken up with the Secretary for Health who advised that the subject was under investigation and prosecutions should therefore not be proceeded with meantime.

(b) Food Inspection

All perishable food arriving at the City Market was examined as a routine and, where deterioration in transit had occurred, the commodities were condemned as unfit for human consumption. The Department was also called in by local wholesalers who suspected unsoundness in certain food and, in these cases where the Department concurred, the food was seized, condemned and destroyed. Likewise a variety of items were destroyed following upon routine examination of stocks in shops or arising from complaints by the public. Incidents included bottled cooking oil which contained visible dirt; fermented orange juice which should have been kept under refrigeration; bacteriological unsoundness of imported prawns; a quantity of bagged rice which had been contaminated with carbon; and market produce consigned in fertiliser bags and in bags labelled "poison". Furthermore, complaints were received of a bee and of a signet ring in pies.

In accordance with usual practice large quantities of tinned food were examined and where the containers were found to be "blown", rusted or extensively dented the contents were condemned.

A consignment of canned meat manufactured in the Transvaal was detained on suspicion of being the cause of a food poisoning outbreak elsewhere in the Republic but after a full investigation the meat was exonerated and released. Difficulty also occurred in the case of locally manufactured "popsicles" in plastic tubes, where it was found that the printing ink on the exterior was soluble.

Food condemned as unfit for human consumption is summarised as follows:-

(i) City Markets

1064 $\frac{1}{4}$ pockets	: beetroots; carrots; chillis; green beans and peas; potatoes; and tomatoes.
344 bags	: cauliflower
277 lots	: cabbage; dressed duck, fowl, geese and turkey; giblets; and pumpkins.
376 cartons	: apples, lettuces and rhubarb.
188 boxes	: carrots, and peaches.
143 trays	: pineapples; plums; and tomatoes
52 packets	: chicken heads

(ii) Wholesalers and Retailers

15,172 tins	: anchovies and pastes; coffee/chicory; fish (9728); fruit (3008); jams and jellies; canned meat; milk products; prawns; soups and sauces; vegetables; and curried eggs.
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90 jars	: anchovies, fruit, and vegetables
618 packets	: biscuits; fish; food mixes; frozen peas; fresh meat; giblets and poultry heads.
42 cases	: cocoanut; fish; and spices.
4335 lbs	: fish (1342); fresh meat; prawns (1495); and vegetables.
216 portions	: fresh meat.
2939 only	: ducks; fowls; geese; rabbits; and turkeys.

(c) Food Premises

All businesses and manufactories were again subjected to an annual survey of food handling and hygiene practices. A number of occasions arose where conditions were sub-standard and remedial steps had to be taken. In one case the preparation of food for sale was located in the back yard of dilapidated and dirty non-trading premises and the accused decided to admit guilt in the sum of R45. A self-service restaurant made inadequate provision for the protection of food from contamination by sneezing and other human agencies; a very inferior cafe-de-move-on was closed down. The cleansing of mugs in a beer hall left much to be desired.

(d) Food Vehicles

The By-laws now require all vehicles used for the sale of food to be registered by the City Medical Officer of Health as an additional means of control to the licensing of hawkers. Apart from the routine registration of hawkers' carts the Department granted certificates in respect of four ice-cream vending machines for the sale of soft dairy mix through the medium of dispensing machines. The vehicles were fully equipped with washing facilities including hot running water, air conditioning and refrigeration.

AUTOMATIC FOOD VENDING

The position regarding coinomatic machines now follows the overseas pattern and some 58 hot and cold beverage dispensers are in use. The Department was particularly concerned with the trend which involved the vending of hot pies and curry and rice, both of a perishable nature. The marketing firm were required to carry out certain prescribed tests before approval could be considered. Following time and temperature tests coupled with bacteriological examinations for proliferation of organisms, registration of machine vending of these foodstuffs was granted under certain conditions.

The Department has concerned itself with the suggestion that another trend will be developed whereby restaurants will be operated 24 hours a day on a purely automatic basis, following overseas concepts of automats designed to maintain meal ingredients in a deep-frozen semi-cooked state. This is followed by the customer rapidly cooking or heating desired items by microwave or similar process. The meal, of course, is then consumed on the same premises without any supervision by the person carrying on the business. Although this new departure can probably be

controlled adequately by existing public health legislation it is perhaps unfortunate that, due to shortcomings in the legislation, trade licensing controls will be absent.

EQUINE MEAT

Following a proposal to establish a horse meat butchery it was felt that, although it was the intention to confine consumption to animals, from a practical viewpoint and, what is more important, from the aspect of safeguarding the public health, it is impossible to ensure that such meat will not be consumed by human beings, particularly illiterate non-Europeans. Due to considerations of public health, therefore, the Department felt obliged to insist that sale should only be permitted from premises reserved for the purpose, i.e. the meat must reach a standard approved for human consumption and first be submitted to and approved by the Abattoir Director.

XI. MILK SUPPLIES

The City's milk supplies are drawn mainly from the Midlands and Southern parts of Natal as well as East Griqualand, 12% (9%) being drawn from the latter area. (All figures in parenthesis indicate the comparable figure for the previous year). Milk from some 618 registered producers was either bulked and refrigerated at ten up-country balancing depots and transported to the City in insulated tankers or consigned direct by road transport in cans. Roughly one-third of the milk was received in cans. The collection of bulk milk direct from refrigerated storage tanks on three farms in the Richmond area, was commenced. Approximately a thousand gallons of milk was supplied daily in this manner.

Raw milk was received by three pasteurising depots situated in and on the periphery of the City. Some 2,500 gallons of milk from registered sources was also sterilised by two depots daily. Milk delivery was carried out by refrigerated pantechicons to distributing depots and the final delivery to householders by hand carts.

Milk Gallonage

The average daily intake during the year was 42,036 (40,313.2) gallons. Approximately 20% of this quantity was sold outside the City boundaries.

Sampling

Milk and milk products were sampled at regular intervals and submitted to the departmental milk laboratory, the City Pathologist, the City Analyst, the local State Bacteriological Laboratories and State Chemical Laboratories, Pretoria.

Samples taken under the Food, Drugs and Disinfectants Act

	<u>1965</u>	<u>(1964)</u>
Milk :	156	(154)
Cream :	36	(36)
Ice Cream :	52	(58)

Samples taken for Tuberculosis Examination (Biological)

	35	(35)
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Prosecutions

	<u>1965</u>	<u>(1964)</u>
Food, Drugs and Disinfectants Act :	1	(1)
Milk (and Milk Products) By-laws :	5	(Nil)
Public Health Act :	Nil	(2)

Control of Milk Supplies

Regular control was exercised by this Department to ensure that a satisfactory standard of compliance with the City's Milk (and Milk Products) By-laws in respect of farm dairy buildings as well as milk hygiene was maintained.

The following staff was employed on full-time milk and milk products control both in the City and in the field :-

1. One Veterinary Officer
2. One Senior Health Inspector
3. Three "country" Health Inspectors
4. Two Lady Laboratory Assistants .
5. One Health Assistant (Sampling)
6. One Indian (Laboratory "Kitchen")

Country inspections were carried out with a view to improving the structural standard of the farm dairy buildings and hygiene of milk production. In respect to the latter, the inspectorate staff were guided by laboratory results obtained on raw milk samples.

Statistics - Inspectional Programme

	1965	(1964)
Total No. of City inspections	1,593	(1,423)
Total No. of Ex-City inspections	1,575	(1,344)
No. of initial dairy inspections	82	(44)
No. of country depot inspections/ sampling	262	(257)
Total No. of dairy inspections	3,168	(3,024)
No. of personal notices served to producers	763	(433)
No. of written notices served to producers	628	(900)
Personnel vi-tested/immunised	1,195	(842)

New dairymen were not registered unless they had effective mechanical refrigeration on their farms.

During the period under review 64 new producers were registered and 46 went out of production, thereby increasing the number of registered producers from 600 (1964) to 618. The estimated average daily production was 56,250 gallons.

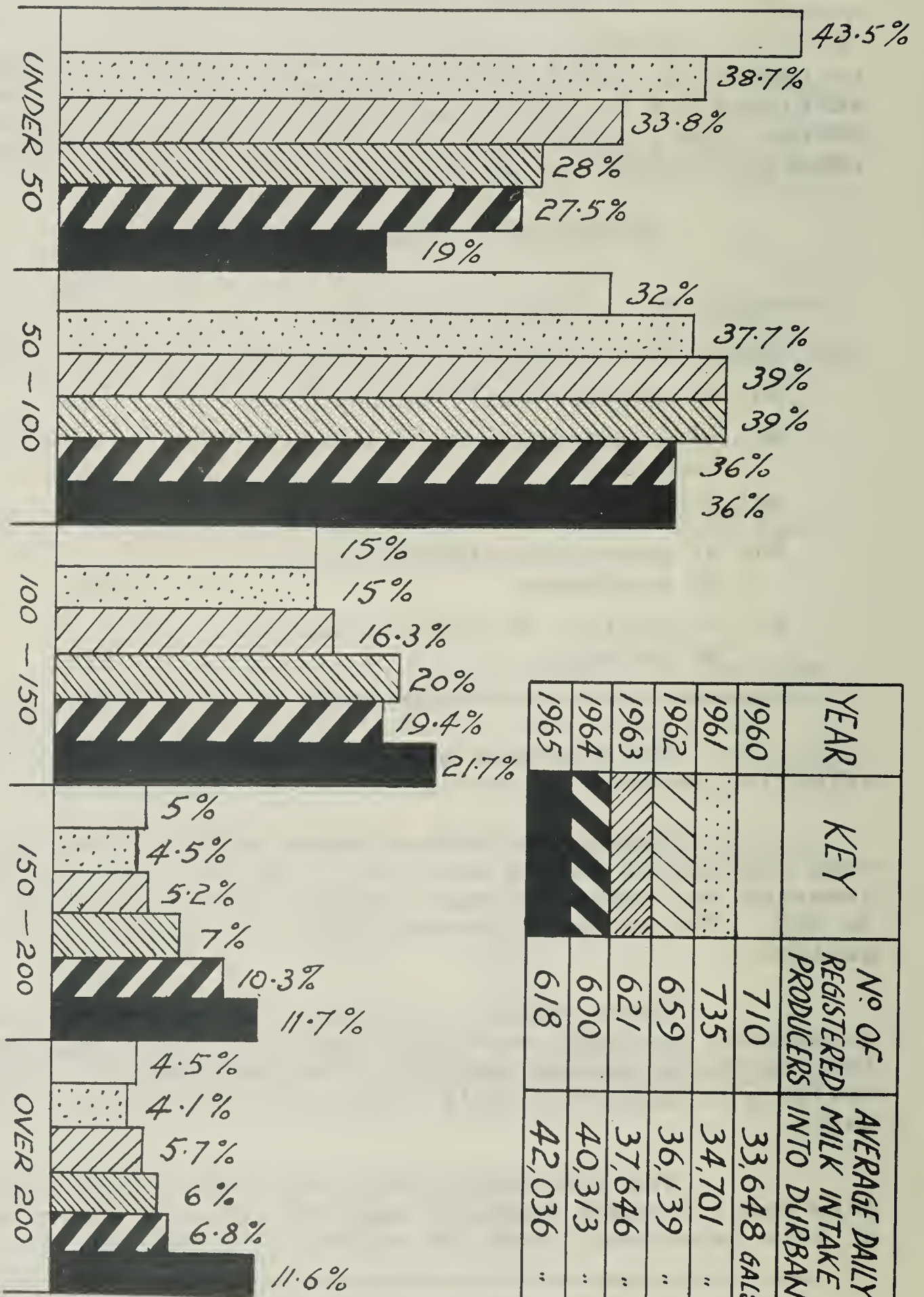
There was a slight drop in the average daily production per registered producer from 95.26 gallons in 1964 to 91.34 gallons in 1965. The accompanying graph illustrates a breakdown of milk production on a daily production basis.

The following table indicates the percentage of farm dairies which complied with the structural requirements of this Department with the figures for 1964 in parenthesis.

Standard of Premises	Percentage conforming to
91% - 100%	22.81% (22.01%)
81% - 90%	57.28% (61.10%)
71% - 80%	19.57% (16.0%)
61% - 70%	.34% (.010%)
59% - 60%	Nil (Nil)

Of the registered producers 75% (68%) had mechanical refrigeration installed on their farms and 25% were

PERCENTAGE OF PRODUCERS



YEAR	KEY	Nº OF REGISTERED PRODUCERS	AVERAGE DAILY MILK INTAKE INTO DURBAN
1960		710	33,648 GAL.S.
1961		735	34,701 "
1962		659	36,139 "
1963		621	37,646 "
1964		600	40,313 "
1965		618	42,036 "

GALLONS OF MILK.

CLASSIFICATION OF REGISTERED MILK PRODUCERS ON A DAILY PRODUCTION BASIS, AND RELATED DATA.



DEPARTMENTAL MILK LABORATORY

making use of mechanical milking.

Inland Balancing Stations

These depots were regularly visited and each producer's milk was sampled approximately once a month. A high standard was maintained in respect of the buildings, equipment and milk handling procedure. Producers' cans were frequently checked and all unsuitable containers were condemned. Can rinses were carried out regularly to check the efficacy of the can washing facilities. The available water supply was sampled and examined bacteriologically.

Producers' raw milk was rejected by departmental officials where necessary on the grounds of contamination with visible dirt, acidity and bacterial counts. The transportation arrangements of milk between farm and depot and depot and the City were closely watched and wherever indicated improvements were effected. Structural improvements and the installation of new plant and equipment were effected at several country milk depots.

Pasteurising Depots and Ice Cream Factories

These premises were regularly inspected and particular attention was paid to production methods and staff hygiene. Line sampling was frequently carried out wherever laboratory results from the final product were found to be unsatisfactory. Improvements in the form of structural additions and modernisation of plant were also effected. Two ice-cream factories in the Transvaal (Boksburg and Pretoria), which retail products from storage depots in Durban, were also inspected from time to time.

Unlicensed Milk

Strict precautionary steps were taken to ensure that only milk and cream from licensed producers were sold in the City. An investigation of a case of Brucellosis in a child led to the discovery of a small supply of raw cream being delivered to residents in the City by an unlicensed milk producer.

Laboratory Control of Milk Supplies

A well equipped laboratory, staffed by two Lady Laboratory Assistants, under the control of the Veterinary Medical Officer, is maintained for regular routine tests. The following tests were performed during the period under review.

	<u>1965</u>	<u>(1964)</u>
Bacterial Counts (Breed Clump Counts)	56	(246)
Tests for visible dirt	5,561	(6,006)
Presumptive B. Coli counts	3,095	(2,537)
Tests for E. Coli Type I (faecal)	357	(350)
Resazurin Dye Reduction Tests	5,924	(5,908)
Phosphatase Tests (Ashaffenburg and Mullen)	2,677	(2,521)
Plate Counts (Astell Roll Tube)	3,252	(2,554)
Titratable Acidity Determinations	40	(35)

	1965	(1964)
Brucellosis (Stained Antigen Ring Test)	1,188	(1,192)
Mastitis (Direct Microscopic)	5,494	(6,845)
Inhibitory Substances (T.T.C. Method)	4,558	(3,149)
Thermoduric Organisms	7,220	(7,916)
Sterility of Sterilised Milk	25	(20)
Clot on Boiling Tests	24	(20)
Freezing Point Determinations (Cryoscope)	5	(4)
Butterfat Determinations	6	(5)
S.N.F. Determinations	6	(5)

(a) Pasteurised Milk

This commodity was sampled every week day from each of the three milk processing factories with the following results :-

Test	No. of Samples (Bottled)	% Satisfactory	No. of Samples (Canned)	% Satisfactory	No. of Samples (Cartons)	% Satisfactory
B. Coli (Presumptive)	866 (785)	92% (89%)	142 (140)	91% (86%)	216 (201)	89% (75%)
B. Coli (Faecal)	185 (200)	92% (100%)	20 (26)	100% (100%)	20 (15)	100% (100%)
Phosphatase	866 (785)	100% (100%)	142 (140)	100% (100%)	216 (146)	100% (100%)
Plate Counts	866 (785)	81% (77%)	142 (140)	71% (85%)	216 (146)	89% (79%)
Thermoduric Organisms	816 (785)	57% (74%)	142 (108)	56% (85%)	216 (106)	67% (84%)
Antibiotics	20 (18)	90% (95%)	-	-	-	-

An arbitrary standard of 15,000 organisms per ml. was adopted for thermoduric organisms. Supplies of sterilised milk were regularly tested for sterility with satisfactory results.

(b) Ice Cream

Factory wrapped and packed ice cream from two local and two manufacturers on the Rand and Pretoria were repeatedly tested with satisfactory results:-

Test	No. of Samples	% Satisfactory
Phosphatase	409 (699)	100% (100%)
B. Coli (Presumptive)	409 (699)	94% (84%)
B. Coli (Faecal)	12 (11)	100% (100%)
Plate Count	409 (699)	99% (99%)

The hygienic control of this commodity was also extended to the sampling of the vendors of bulk ice cream (scoops) in tearooms and restaurants, with the findings as set out hereunder :-

Test	No. of Samples	% Satisfactory
Phosphatase	510	100%
B. Coli (Presumptive)	510	72%
B. Coli (Faecal)	28	90%
Plate Counts	510	30%

It is estimated that on average approximately 50 tons of ice cream and allied products were consumed every week in the City.

(c) Soft Dairy Mix

Some 15 tearooms and restaurants were licensed to dispense soft dairy mix manufactured by one ice cream manufacturer and this foodstuff was periodically examined as set out below :-

Test	No. of Samples	% Satisfactory
Phosphatase	380 (368)	100% (100%)
B. Coli (Presumptive)	380 (368)	67% (83%)
B. Coli (Faecal)	19 (15)	100% (100%)
Plate Counts	380 (368)	94% (96%)

(d). Cream

Only pasteurised cream, processed by the three registered milk dealers, was sold to the public and this product too, was frequently sampled and examined.

Test	No. of Samples	% Satisfactory
Phosphatase	192 (157)	100% (100%)
B. Coli (Presumptive)	192 (157)	76% (83%)
B. Coli (Faecal)	18 (10)	60% (100%)
Plate Counts	192 (157)	92% (97%)

(e) Iced Confections

Because these frozen "suckers" sometimes contained a percentage of milk or milk powder, the hygienic production and handling methods were checked by regular sampling :

Test	No. of Samples	% Satisfactory
B. Coli (Presumptive)	149 (86)	80% (50%)
B. Coli (Faecal)	15 (4)	100% (100%)
Plate Count	149 (86)	94% (91%)

(f) Producer (Farm) Milk

Bulk herd milk from each registered producer was regularly sampled at receiving depots by the dairies inspectors and returned to the departmental laboratory in

insulated refrigerated containers. The tests carried out were :

Test	No. of Samples	% Satisfactory
Resazurin (1 hour)	5,243 (5,856)	90% (90%)
Visible Dirt	5,194 (6,006)	91% (96%)
Antibiotics (T.T.C. method)	4,117 (2,540)	98% (95%)
Thermoduric Organisms	5,137 (5,954)	84% (85%)
Mastitis (Direct Microscopic)	5,079 (6,117)	79% (90%)
Brucellosis (Ring Test)	1,154 (1,192)	85% (90%)
Tuberculosis (Biological)	35 (35)	97% (100%)

A thermoduric count (in media "flash" method from raw milk of more than 50,000 organisms per ml. was considered unsatisfactory.

Tankers were regularly sampled on arrival in the City and tested as under :

Test	No. of Samples	% Satisfactory
Resazurin (1 Hour)	586 (808)	92% (70%)
Thermoduric Organisms	720 (808)	50% (46%)
Antibiotics (T.T.C.)	435 (605)	93% (90%)

Swab tests, to check the efficacy of tanker sterilisation, were also carried out at regular intervals.

Milk Shortage

As a result of unfavourable climatic conditions prevailing in the City's milk shed, a shortage of available fresh milk supplies was experienced in early winter. In order to avert the introduction of rationing of fresh milk in the City, permission was granted to the milk trade to introduce milk from unlicensed sources solely for the manufacture of sterilised milk. This had the effect of making available for the fresh milk trade some 2,500 gallons of milk daily. A total of 56,489 gallons of industrial milk was introduced thus during May and June from Underberg, Cedarville and Tweespruit.

Animal Diseases Affecting Milk Supplies

Apart from the regular testing of milk supplies for the presence of certain pathogens the Veterinary Medical Officer also visited producers and advised on the control and eradication of disease conditions that affected milk production and were of public health significance. Close liaison was maintained with the State Veterinary Department as well as private veterinarians and this Department was kept informed of any outbreaks of animal diseases that could have had an effect on public health.

Mastitis

Routine testing of producers' raw milk supplies by means of the examination of gravitational cream smears revealed that approximately 21% of samples showed the

presence of organisms usually associated with chronic streptococcal mastitis.

The Allerton Veterinary Diagnostic Centre, Pietermaritzburg, has undertaken a survey of the incidence of mastitis in Natal and also gave valuable assistance to this Department as well as to individual producers in controlling this disease.

Brucellosis

Approximately 15% (10%) of all raw milk supplies gave either positive or suspicious results for brucellosis when tested by the stained antigen ring test. Of 1,134 blood samples tested by the serum agglutination method by the Allerton Veterinary Diagnostic Laboratories, 7% were either positive or suspicious. A total of 90 herds, involving 31,553 animals, were immunised against this disease with the Strain 19 vaccine.

Tuberculosis

Thirty-five biological tests were carried out on bulk herd samples by this Department but only one positive sample was found. Block tests, done subsequently on this particular herd, did not reveal the presence of any voiders of tubercle bacilli.

A total of 30,876 bovines were tested by the State Veterinary Department by means of the intradermal tuberculin test for accreditation, the interim scheme, and diagnostic purposes. These tests involved 262 herds. One hundred and eighty-four animals were found to be positive whilst 387 gave suspicious results for the disease.

During the period under review, two herds were successfully treated with tuberculostatic drugs. At the time of writing 118 herds were registered under the Government Accredited Herd Scheme.

Calf Mortality

Diseases such as verminosis, coccidiosis, paratyphoid and sweating sickness took a heavy toll of future and potential milch cows.

Other Diseases

(1) Lumpy Skin Disease

Severe outbreaks of this disease adversely affected milk production throughout Natal and East Griqualand.

(2) Piroplasmosis

Heavy bovine mortality was recorded as a result of outbreaks of redwater.

(3) Infertility

Due to a variety of causes reproductive problems have also adversely affected milk production. Infective causes such as vibriosis and trichomoniosis are being countered in an admirable manner by the Natal Artificial Insemination Co-operative.

(4) Poisoning

Outbreaks of plant (inkberry bush, lantana, tulip, matricaria) and mineral poisoning (arsenic, lead, urea, insecticides) were reported.

General

1. Nine final year veterinary students from Onderstepoort spent three weeks at the Veterinary Hygiene Section of this Department as part of their vocational training in Special Hygiene and Public Health.
2. This Department, in conjunction with the Natal and East Griqualand Dairy Farmers' Association provided a stall at the Royal Agricultural Show in Pietermaritzburg. Demonstrations and models of interest to dairy farmers were exhibited. A Dairies Inspector from this Department was available to assist registered producers and potential dairymen with any problems.
3. The Veterinary Medical Officer undertook the professional duties at the City Abattoir in the absence of Abattoir Director and Veterinary Officer.

XII. FIELD HYGIENE

It has become increasingly evident that chemicals alone do not provide a solution to the problem of control of insect pests, nature itself providing the balance to ensure insects do not multiply unduly. It is only when this balance is upset, usually by man, that pest population explosion occurs.

New insecticides, marketed by high pressure salesmen, proclaiming far reaching powers were offered to the public. Nature, however, soon provides an antidote to these insecticides in the form of natural, acquired or behaviouristic resistant strains. It is for this reason that the Field Hygiene Section of the Department has adopted a policy of using pesticides as a temporary expedient of control, pending some permanent solution.

Mosquitoes

A breakdown of the 613 mosquito complaints investigated readily indicates the sources from which nuisances emanated. Figures in parenthesis refer to the previous year:

Tins, drums, motor car tyres etc.	230	(279)
Defective drains, sub-floor areas	97	(87)
Buildings under construction	23	(-)
Soakpits/Septic tanks	70	(113)
Choked stormwater drains	1	(52)
Natural swamps	25	(96)
Sanitary fittings	31	(56)
Unsolved	50	(88)
Unjustified	86	(51)
Total:	613	(822)

In only 10% of these complaints was the source of nuisance located more than 100 yards from the complainant.

The marked reduction of sources due to natural conditions can be attributed to improved control at the Bay-head, where on the recommendation of this Department, biological control was introduced by the Railway Administration in favour of chemical measures. In previous years this area gave rise to prolific mosquito development.

An additional aspect of the Departmental biological mosquito control programme is reflected in the sub-joined table, namely a reduction of 66 gallons malarial oil and 62 gallons of insecticidal concentrate with a consequent reduction in cost from R1495 in 1964 to R1174 in 1965.

Yards Ditching		Oil Used		Other Insecticides	
1964	1965	1964	1965	1964	1965
447,192	517,276	142 gals.	76 gals.	238 gals.	176 gals.

Following the use of a highly sensitive and selective medium, Salmonella were isolated from the gills of fish taken from the kwaMashu sewage ponds. It was then reluctantly decided to discontinue supplying fish from this source for human consumption, although it remains a moot

point as to whether this action was really necessary as the fish are always cooked and no ill effects had been encountered amongst the consumers. However, numerous loads of fish were removed to avoid overstocking, and these were supplied to adjoining areas for stocking and the surplus were directed to the Municipal compost sites.

Bugs

The policy adopted in 1964 of treating rooms only where bugs were located was continued throughout 1965. The actual cost charged to the Department of Bantu Administration over a twelve month period totalled R3,929 as against an original estimate of R5,740. This service which covers all Bantu single quarters under the control of that Department, housing 21,534 persons, works out at an average cost of 18 cents per person annually.

A survey of the new Chatsworth Housing Scheme disclosed that 60% of the houses were bug infested. An anti-bug campaign was introduced, in co-operation with the City Treasury. This Department undertook the spraying and the costs were recovered by the City Treasurer from the individual tenants. Without any increase of staff 6,349 rooms were treated between May and December at a cost of 20 cents per room, resulting in the recovery of R1,269 for an outlay of R341 for materials used.

Far more important, however, than the financial return, a survey in December of areas treated in May, revealed that the incidence had fallen from 60% to 6% and of that 6% not one room had been treated previously.

Some cyanide fumigation is still being carried out privately for the destruction of bugs but, whenever possible, my Department discourages this method of control which has proved far less effective than the cheaper and safer method of residual insecticide sprays.

Bilharzia

In an endeavour to find a natural predator which would control snails, tests carried out in the laboratory gave an indication that possibly tilapia fish might provide the answer. However, subsequent tests in the field showed an equal increase of snails in ponds containing tilapia compared with ponds free of fish.

It was concluded that tilapia in limited numbers will not unduly affect snail multiplication but possibly a marked increase of tilapia and a lessening of natural food may have some effect on snail increase. It is proposed to maintain observations.

Cockroaches

During the year the Senior Health Inspector, in co-operation with the Health Educator addressed gatherings of women from various Women's Institutes on cockroaches and their control. The opportunity was taken at these talks to stress the fact that despite claims to the contrary, there was no perfect insecticide, that good housekeeping per se was the primary goal in all cockroach control programmes and that insecticides should only be used when harbourage areas and exposure of food had been dealt with or prevented, as the case may be.

In the course of its own programmes against cockroaches the Department used the quantities of insecticides as indicated below:

Insecticides Used		Manholes Treated	
1964	1965	1964	1965
112 gals.	31½ gals.	43,319	19,894

Flies

Complaints investigated totalled 289 compared with 310 for the previous year. The sources of nuisance followed a similar pattern to the previous year and are listed hereunder, together with the figures for the previous year in parenthesis.

Garden cuttings and compost heaps	60	(82)
Manure	28	(29)
Poultry keeping	37	(40)
Sports Fields	-	(2)
Refuse receptacles	35	(55)
Stables	2	(3)
Dumping on vacant land	20	(13)
Other conditions	30	(20)
Unsolved	27	(52)
Unjustified	49	(17)

One complaint bears special mention as it involved the importation of seven tons of highly fly-blown manure into a good standard residential area. In the interests of public health, Departmental anti-fly measures were undertaken and were maintained over a period of 4 weeks before the nuisance was finally abated.

In the course of the year the Department, in fly control, incurred expenditure for the following:

Materials Used			
Insecticides		Poison	
1964	1965	1964	1965
10 gals.	100 lbs dust	252 lbs	362 lbs

Rodents

No undue rodent incidence was recorded during the year. Poisoning with blood anti-coagulants was the main method of rodent destruction employed and, in this regard excellent results were obtained, particularly when using this poison made up in the form of a wax block. These blocks, which are impervious to moisture, proved most effective in stormwater drains, groynes and piers.

Close liaison was maintained with the State Health and Port Health authorities and all relevant data was interchanged. The work performed is summarized hereunder:

Rodents destroyed		Rodents submitted for Plague index		Poison used	
1964	1965	1964	1965	1964	1965
2,406	2,320	219	236	1,158 lbs 2,247 gms.	3,015 lbs 1,324 gms.

XIII. ALLIED HEALTH SERVICES

I. SEWER PROGRAMME

The Old Borough of Durban has been sewered for many years past, but the "Added Areas" which were incorporated in 1932 have lagged behind in the provision of this essential service. Although much has been done in the intervening years there is a vast amount of work which still lies ahead as the following statistical data demonstrates :-

	<u>Old Borough</u>	<u>Added Areas</u>	<u>Total</u>
Total Areas : acres	8,320	34,060	42,380
Areas Sewered : acres	8,320	7,040	15,360
Areas Requiring Sewerage :			
Residential Land : acres	-	21,120	
Other Land : acres	-	<u>5,760</u>	26,880
Premises served by : sewerage	16,579	7,427	24,006
: septic tanks	-	13,242	13,242
: pails	-	11,017	11,017
: conservancy tanks	-	-	53

N.B. The kwaMashu Bantu Township to the North and the Chatsworth Indian Township to the South are provided with independent sewage disposal schemes, although the latter temporarily consists of maturation ponds, serving 12,180 and 6,111 houses respectively.

The breakdown of the position in the various sections of the Incorporated Areas is reflected in the following tables :-

<u>Northern Areas Scheme</u>	<u>Total Acres</u>	<u>Sewered Acreage</u>
Reservoir Hills	1,750	-
Clare Estate	1,800	-
Springfield	2,040	1,250 (61%)
Avoca	1,560	-
Effingham	1,590	-
Sea Cow Lake	830	-
Virginia	740	310 (41%)
Durban North	990	-
Riverside	590	-
Greenwood Park	940	500 (53%)
	<u>12,830</u>	<u>2,060 (16%)</u>

Southern Areas Scheme

Sydenham	950	325 (34%)
Cato Manor	3,240	250 (8%)
Westridge	1,490	160 (11%)
Bellair-Hillary	2,110	-
Rosburgh-Sea View	1,260	410 (33%)
Montclair-Woodlands	1,700	1,070 (63%)
Bayhead	1,390	55 (4%)
Mobeni Jacobs	1,580	860 (54%)

Fynnland	900	290	(32%)
Wentworth-Bluff	2,800	130	(5%)
Merebank	1,340	800	(60%)
Lamont	2,480	630	(25%)
	<hr/>	<hr/>	
	21,240	4,980	(24%)
Total	34,070	7,040	(21%)

The City Council on 1st December, 1961, had approved a comprehensive scheme of construction visualising the expenditure of R44,550,000 on sewerage reticulation over a period of 15 years, but no decision had been reached on the programme to be followed, and on 2nd December, 1963, it had approved an expenditure of R12,150,000 for three sewage treatment works. During 1964 it was found necessary to give consideration to the whole position and to determine the tempo at which the work was to be carried out. The Director of Special Works, who had been appointed to undertake the planning and execution of certain major capital works, reported on the construction of sewage treatment works and ocean outfalls, and the City Treasurer and the City Engineer submitted a joint report pointing out that the reticulation of the City was divided into two phases, i.e. the provision of trunk mains and the reticulation of the various residential and industrial areas.

The City Council at its meeting held on 14th December, 1964, felt that the construction of the trunk mains should be carried out within a period of five years and then it would be possible to reticulate to any particular area at short notice should special circumstances require such action. It furthermore gave consideration to the reticulation programme for the unsewered areas of the City covering a period of fifteen years from 1965/1966 financial years to 1979/1980 and adopted the programmes and priorities as follows :-

Trunk Sewer Programme

Area	1965-1966	1966-1967	1967-1968	1968-1969	1969-1970
Reservoir Hills					
Umhlatuzana Valley					
Umbilo-Mayville					
Sea Cow Lake					
Durban North A					
Durban North B					
Avoca					
Wentworth					

SEWER RETICULATION PROGRAMME - 1965 to 1980

AREA	65-66	66-67	67-68	68-69	69-70	70-71	71-72	72-73	73-74	74-75	75-76	76-77	77-78	78-79	79-80
Clare Estate															
Bellair - Hillary															
Merebank															
Springfield															
Rossburgh - Sea View															
Sea Cow Lake															
Mobeni - Jacobs															
Reservoir Hills															
Bayhead															
Riverside															
Sydenham															
Greenwood Park															
Cato Manor															
Durban North															
West Ridge															
Virginia															
Montclair - Woodlands															
Avoca															
Fynnland															
Effingham															
Wentworth- Bluff															
Phoenix - Mt. Edgecombe															

II. ENGINEERING WORKS

The City Engineer has kindly furnished the following information on certain services of public health importance concerning sewerage, sanitary services, water and atmospheric pollution, undertaken by his Department.

"i. Waterborne Sewerage

Trunk and Main Sewers

To assist in the implementation of the 15 year sewerage reticulation programme, a number of consultants have been appointed to supplement the designs being undertaken by the Department. The design of sewerage reticulation in the areas of Kenville, Sea Cow Lake, Reservoir Hills, Clare Estate, Bellair and Hillary has been put in hand, and the trunk mains serving Reservoir Hills and Clare Estate, the Umbilo and Umkumbaan River catchments, and the Umhlatusana River catchment (which includes the northern catchments of Chatsworth Indian Housing Scheme) are being planned.

The Calais Road/Gale Street sewer has been completed and work has continued on the Sydney Road/Canberra Road 30" Main Sewer which crosses the Congella Marshalling Yard.

Reticulation

In conjunction with road development works sewers were relaid in Smith Street, Fenton Road, Umgeni Road and Old Fort Road. Old sewers in Innes Road, Young's Avenue and John Milne Road were also reconstructed.

Sewer Extensions

Extensions to the reticulation system in the area of the Old Borough were carried out in Ferndale Avenue, off Musgrave Road, off Moore Road, Miller Grove, Burman Drive, Kenneth Gardens, Crart Avenue, Rhodes Avenue, Hunt Road.

New sewerage reticulation was also carried out in the Brickhill Road/Playfair Road area in advance of the road works required for flat development.

Numerous other small extensions have been carried out in the incorporated areas and in the Hillary area work on reticulation has continued. This reticulation cannot be brought into commission until the completion of the Southern Sewerage Works.

It is proposed to replace the Albert Park pumping station with two new ones, one on the Victoria Embankment which is now under construction and the second in Maydon Road. Construction has commenced on the Treatment Works to serve the northern catchment of the Umlazi Bantu Township and consultants have been appointed for the design and construction of the Treatment Works to serve the southern catchment which drains to the Isipingo River.

ii. Refuse and Nightsoil Removal Services

Cleansing services continued to increase, necessitating the purchase of eighteen new refuse vehicles of 24 cu. yd. capacity to replace older vehicles and to cope with expansion. Refuse removal and nightsoil services were commenced in the Indian townships of Kharwastan and Umhlatuzana towards the end of the year. Indian motor drivers and crews are being used to operate in these areas and at Chatsworth.

The disposal of refuse by land reclamation methods on the Springfield Flats and the Bluff Valley continues satisfactorily, but the whole question of refuse disposal is being examined in order to provide for the future. A new tip site at Chatsworth to deal with refuse from the Indian areas has been brought into operation.

iii. Water Supplies

A summary of the water consumed from the Durban sources of supply for the Municipal years 1964/65 and 1965/66 is set out below :

Month	1963 - 1964		1964 - 1965	
	Monthly Total (Gallons)	Daily Average (Gallons)	Monthly Total (Gallons)	Daily Average (Gallons)
Aug.	1,571,098,900	50,680,610	1,692,130,100	54,584,842
Sept.	1,551,895,300	51,729,843	1,545,859,700	51,528,657
Oct.	1,615,697,200	52,119,265	1,633,532,100	52,694,584
Nov.	1,571,407,800	52,380,260	1,704,999,300	56,833,310
Dec.	1,709,310,600	55,139,052	1,810,382,800	58,399,445
Jan.	1,746,076,600	56,325,052	1,885,168,000	60,811,871
Feb.	1,667,125,400	57,487,083	1,791,809,500	63,993,196
Mar.	1,859,289,500	59,977,081	1,989,719,700	64,184,506
Apr.	1,718,283,300	57,276,110	1,833,208,600	61,106,953
May	1,656,835,700	53,446,313	1,779,133,900	57,391,416
June	1,638,052,800	54,601,760	1,622,514,800	54,083,827
July	1,688,301,000	54,461,323	1,724,337,500	55,623,790
Yearly Totals	19,993,374,100	54,626,705	21,012,796,000	57,569,304

Regular bacteriological and chemical examinations of water taken from all parts of the City and at the district water works were made throughout the year and the high quality of the drinking water has been maintained.

iv. Public Swimming Baths

Chemical and bacteriological control of 13 European and 4 non-European swimming bath waters was carried out and a satisfactory standard of water quality was maintained. Technical advice on bath water purification was given to swimming bath Supervisors.

v. Bathing Beaches

Monthly bacteriological surveys of Durban's beaches from Beachwood to Isipingo have been carried out.

vi. Atmospheric Pollution

Smoke Control

The residential area of the Old Borough of Durban is now a Smokeless Zone covering the Beach-front area, the Central City area and the residential area from the Umbilo River to the Umgeni River bounded by the top of the Berea, Umbilo Road and the Beach-front. In this area the Smoke Control By-laws require that there shall be no smoke emission and outside this area a general smoke limit applies. Throughout Durban the emission of any smoke which causes a nuisance is prohibited.

The Department still has no direct control over the smoke emission from South African Railways locomotives but a close liaison was maintained with the South African Railways own Smoke Inspector.

Diesel smoke continues to be a problem despite the fact that in 1965 alone, 2,180 instances of diesel vehicles emitting excessive smoke were reported to the police and/or the operators of the vehicles for rectification. The Department undertook several vehicle smoke emission surveys including one on behalf of the Council for Scientific and Industrial Research using a photo-electric smokemeter in Durban. It would appear that until a smoke limit and test procedure is prescribed by law and steadily enforced throughout South Africa, only slow headway will be made with the eradication of diesel smoke from buses which are greater offenders than diesel lorries in Durban.

Odour Control

Few complaints were received regarding odour emission from the Whaling Station and Oil Refineries. The North Coast odours were experienced on a number of occasions throughout the year, but the recent falling off in complaints suggests that the odour control measures being adopted by a large concern situated well north of Durban were having their effect.

Dust control

During the year there were strong complaints regarding the nuisance caused by dust blowing from the reclamation works south of the Bayhead Marshalling Yards where the Electricity Supply Commission were dumping pulverised fuel fly ash collected at the power station. Following strong representations to the System Manager, South African Railways, and the Electricity Supply Commission, a joint meeting was arranged which formulated measures to stop this dust nuisance. Other dust complaints dealt with during the year related to sawdust nuisances from furniture factories and dust and grit from boiler plants. All firms concerned undertook to install suitable dust

collecting plants as recommended by this Department. An unusual complaint was that of a mist which deposited on cars and attacked the paintwork; this was traced to the blowing down of water from a nearby boiler plant which contained alkaline water treatment chemicals capable of attacking car paintwork. Modification to the blowdown system and to the mode of operation successfully overcame this nuisance.

Development Control

All trade licences, building plans, applications for permission to conduct offensive trades and sales of Corporation land to industry were reviewed throughout the year to ensure that adequate provision was made for the control of air pollution from smoke, dust, ash, grit, fumes and odours."

III. MEAT SUPPLIES

The inspection of meat supplies entering the City is carried out at the Municipal Abattoir by qualified staff under the supervision of the Director, Dr. F.E. Cavanagh, B.V.Sc., to whom I am indebted for the subjoined report:-

Abattoir

The number of animals slaughtered has increased by over 100% in the last ten years. Despite these increased numbers, the accommodation and facilities have coped satisfactorily with the situation, but the time has now been reached when either a new abattoir will have to be erected, or considerable additions made to the existing premises.

Slaughtering

All slaughtering is carried out in accordance with the provisions of the Slaughter of Animals Act (No.26 of 1934, as amended).

Ante-Mortem Inspection

Animals are subjected to inspection by veterinarians, and any suspected cases of illness or disease are removed to a special quarantine section, and slaughtered separately.

Meat Inspection

Carcases and offals are inspected by a staff of qualified meat inspectors operating under the supervision of veterinarians, in terms of the Public Health Act, No.36 of 1919.

Disposal of Waste and Condemned Materials

Condemned carcasses etc. are treated in a by-products plant, the resultant by-products (farm feeds and tallow) commanding a ready sale, the proceeds of which more than cover the cost of treatment, the surplus assisting towards keeping down tariffs.

Cold Storage

Refrigerated space totalling 170,000 cubic feet

is available, and has operated satisfactorily throughout the year.

Abattoir Commission Bill

As a result of the Government Enquiry into Abattoir and Allied Facilities, a Bill is to be submitted to the next session of Parliament which will empower the Minister of Agriculture to appoint a permanent commission to control abattoir affairs throughout the Republic.

Tuition

A number of final year B.V.Sc. students spent some weeks at the Abattoir to gain some practical experience of abattoir methods and control. A large number of candidates for the Meat Inspector's examination were also accommodated at the Abattoir for the purpose of obtaining practical training for this certificate.

Animals Slaughtered and Carcases Condemed

Details	Bovines	Calves	Swine	Sheep	Goats
Whole carcases condemned	1,231	392	2,240	1,061	64
Portions of carcases condemned in lbs	410,331	60	86,272	2,329,571	5,482
Total number of animals slaughtered	143,465	12,889	74,263	602,636	35,561

XIV. GENERAL

CODE OF PRACTICE : BILHARZIA

The Department has always been conscious of the problem associated with the widespread infestation of rivers and streams, and any large natural and artificial collections of water, with the bilharzial parasites and the offending intermediary snail hosts, but one of the questions which presents the greatest difficulty is to find an adequate answer to the dangerous, albeit understandable, desire on the part of children (and adults) to bathe or boat in inland waters where the disease is known to exist. With a view to achieving the greatest impact in every family within the City as a health educational medium, a code of practice was printed and distributed through the local schools prior to break-up for the summer holidays.

CONFERENCES

During the year the Department was represented at a number of professional and technical gatherings. The City Medical Officer of Health attended the Biennial Congress of the Nutrition Society of Southern Africa in April; he attended as a member of an ad hoc Sub-Committee of the Natal Municipal Association regarding Kwashiorkor and Vaccination against Smallpox and also gave evidence before the Commission of Enquiry into Nursing regarding the training of general nurses in the nursing of patients suffering from communicable diseases. He also served on the Natal Research Liaison Committee of the South African Council for Scientific and Industrial Research. The Deputy City Medical Officer of Health attended the 45th Congress of the Medical Association of South Africa in Port Elizabeth and the 15th Annual Conference of the Umgeni Catchment Association, and the Veterinary Medical Officer attended the 60th Annual Congress of the South African Veterinary Medical Association held at Onderstepoort. As the medical staff was below full strength it was necessary to decline invitations to be represented at the annual general meetings of the South African National Council on Alcoholism held in Johannesburg in June and the South African National Council for Mental Health held at George during October.

TRAINING FACILITIES

Early in the year the Department undertook to make the facilities of the Milk Laboratory available to veterinary students from Onderstepoort and to provide an insight into various aspects of the milk control programme whilst they were in Durban obtaining practical experience at the Municipal Abattoir. This year saw the inauguration of a co-ordinated in-service training scheme for junior planning assistants from the City Engineer's Department. These youths spent fourteen days in the Department to gain some knowledge of the public health implications of town planning as part of the practical aspects of their pupilage. The current year saw an abnormal number of Health Inspector trainees who required practical experience as part of the requirements for the award of the Public Health Inspector's Certificate under the syllabus of the Joint Examination Board of the Royal Society of Health and the Government. The candidates, who had already passed the final examination, were drawn from the staff of this and other Municipal Departments and also from outside avenues of employment.

With the approval of the City Council and the Minister of Health, the City Medical Officer of Health was appointed Honorary Senior Lecturer in Public Health Administration in the Department of Medicine of the University of Natal. During the month of August the first of a series of seven one-hour lectures was given to fifth year non-European students and an equal number of practical demonstrations were arranged. In October arrangements were made for ten final year B.A. (Nursing) students of the University of Natal to receive lectures from the Deputy Chief Health Visitor on the organisation of public health services, with special emphasis on child health, including appropriate demonstrations and a view of the principles of home visiting.

During the year there was a dearth of recruits for employment as learner health inspectors and the Natal Technical College was unable so far to inaugurate the new syllabus for the National Diploma for Health Inspectors due to the paucity of candidates. In an attempt to attract the interest of this year's matriculation candidates a Career Guide was circulated to high schools in the greater Durban area.

INFECTIOUS HEPATITIS

The Regional Director, State Health Services: Natal, advised that it had been decided that certain of the larger local authorities should be requested to have virus hepatitis declared a notifiable disease, and that the Secretary for Health would appreciate an indication whether this suggestion was acceptable to the Durban City Council. It so happened that this Department had been considering the matter but felt that, in view of the several forms which this disease can take, the definition should be more specific with a view to avoiding uncertainty. The City Council concurred and resolved to request the Minister of Health to declare that infectious hepatitis or virus hepatitis (including serum hepatitis or homologous serum jaundice) be notifiable within the City of Durban.

LEGISLATION

(a) Public Health Amendment Act, 1965

The principal Act, and the Public Health Amendment Act, 1935, were amended during the current year. The new provisions, in the main, were of minor importance but uncertainty has arisen regarding the financial implications of the reference to a "public health nurse". As a public health nursing service is not defined it is not clear whether the present establishment of "refundable" health visiting personnel will ipso facto qualify for seven-eighths refund of salaries or whether staff presently engaged on non-refundable services such as immunisation will now qualify, but what is clear is that, from a date to be proclaimed, a certificated health visitor will not fall within the category of "health officer" and thus will no longer qualify for a third refund of the cost of her salary.

(b) Draft Mosquito and Rodent Regulations

The Minister of Health notified his intention of substituting new regulations regarding (i) the prevention of malaria and other mosquito-borne diseases and for the destruction of mosquitoes and (ii) regarding the prevention

of rodent infestation. The City Council advised the Secretary for Health that it had no objection to the proposed regulations being applied to its area of jurisdiction.

(c) Draft Food Inspection Regulations

The Minister also indicated his intention of introducing a new regulation framed under Section 115 of the Public Health Act, 1919, relating to food inspection. The City Council in this case also raised no objection but suggested that the proposed regulations could with advantage (i) include authority for a food inspector, if necessary, to require the owner to deliver food to a designated place for examination, destruction or disposal and (ii) prohibit the sale of any article which had been detained.

PROSECUTIONS

Code Contravened	Admitted Guilt	Found Guilty	Fine Paid	Remarks
<u>PUBLIC HEALTH BY-LAWS</u>			R	
Unclean conditions	11	3	185.00	2 cases : R20.00 or 10 days each 1 case : R15.00 or 10 days (suspended for 1 year)
Structural defects	12	4	221.00	1 case : R15.00 or 8 days 1 case : R15.00 or 5 days 1 case : R10.00 or 5 days 1 case : R30.00 or 30 days (R25.00 or 25 days suspended for 1 year) 2 cases : Not guilty
Drainage defects	10	1	129.00	1 case : R20.00 or 10 days 2 cases : Not guilty
Defective sanitary fitments	6	1	70.00	1 case : R15.00 or 8 days
Failure to repaint premises	3	1	30.00	1 case : R30.00 or 15 days (suspended for 1 year)
Fly breeding	5		55.00	
Keeping of goats without a permit	1		5.00	
Keeping of bovines without a permit		1		1 case : R20.00 or 10 days (suspended for 12 months)
Absence of refuse receptacle	2		15.00	
Absence of effective drainage	1		15.00	

Prosecutions (Contd.)

Code contravened	Admitted Guilt	Found Guilty	Fine Paid	Remarks
<u>FOOD BY-LAWS</u>			R	
Unclean conditions	23	3	447.00	1 case : R50.00 or 30 days 1 case : R30.00 or 15 days 1 case : R30.00 or 20 days 1 case : Not guilty
Exposure of food to contamination	15	2	28.00	1 case : R30.00 or 20 days 1 case : R5.00 or 4 days
Failure to provide clean overalls	7	1	88.00	1 case : R20.00 or 10 days
Unhygienic utensils and crockery	6		65.00	1 case : Not guilty 1 case : Withdrawn by Public Prosecutor
Failure to keep perishable food under refrigeration	2		20.00	1 case : Withdrawn by Public Prosecutor
Failure to provide soap and towels for staff	2	1	30.00	1 case : R20.00 or 10 days
Unclean delivery van	3		50.00	
Defective delivery van	1		10.00	
Keeping incompatible articles in food room	1		10.00	
Failure to repaint premises	1		15.00	
Structural defects	1		15.00	
Preparation of food in unapproved premises	1		15.00	
Failure to provide food handling apparatus	3		18.00	

Prosecutions (Contd)

Code contravened	Admitted Guilt	Found Guilty	Fine Paid	Remarks
<u>FOOD BY-LAWS (Contd)</u>			R	
Failure to provide adequate hot water	2		25.00	
Keeping personal clothing in food room	3		20.00	
Sale of unsound food	2		30.00	
Defective refrigeration	1		15.00	
<u>MILK (AND MILK PRODUCTS) BY-LAWS</u>				
Sale of ice cream not conforming to bacterial standards	5	1	65.00	1 case : R10.00 or 10 days
Adulteration of ice cream				1 case : Not guilty
<u>BUILDING BY-LAWS</u>				
Failure to provide sanitary accommodation on building site	6		85.00	
<u>SLUMS ACT</u>				
Failure to demolish slum	1		10.00	
<u>PUBLIC HEALTH ACT</u>				
Obstructing an Inspector in the course of his duties		1	15.00	Or 8 days
Keeping of unsound food for sale	1		20.00	
<u>MOSQUITO REGULATIONS</u>				
Mosquito breeding	3		35.00	
<u>FOOD, DRUGS AND DISINFECTANTS REGULATIONS</u>				
Sale of minced meat containing preservative	5	1	130.00	1 case : R30.00 or 15 days

Prosecutions (Contd.)

Code contravened	Admitted Guilt	Found Guilty	Fine Paid	Remarks
<u>FOOD, DRUGS AND DISINFECTANTS</u> <u>REGULATIONS (Contd.)</u>			R	
Sale of sausages containing excess preservative	1		14.00	
Sale of sausages not conforming to chemical standards	2		20.00	
Sale of orange juice not conforming to chemical standards	2		30.00	
Sale of honey not conforming to chemical standards	2		30.00	
Sale of milk not conforming to chemical standards	1		10.00	
Sale of boerewors not conforming to chemical standards	1		15.00	
TOTAL	155	21	2357.00	

XV. STAFF AND FINANCIAL SUMMARY

A number of amendments were made to the staff establishment of the Department and for changes in personnel occasioned by retirements and resignations.

Staff Recruitment

(a) Medical:

As has been the case for some years past, difficulty was again experienced in filling vacancies for medical staff. However, it was possible to make an appointment to the second position of Assistant Medical Officer of Health which had been vacant since its creation two years before.

The position in regard to Clinical Medical posts, both full-time and part-time, gives cause for much concern, particularly from the viewpoint of maintaining certain important clinic services for non-Europeans i.e. tuberculosis and venereal diseases control.

(b) Technical:

The existence within the Municipal service of a reservoir of qualified personnel has facilitated the filling of vacancies for Health Inspector. However, this favourable state of affairs occasions no cause for complacency. The reservoir is being steadily depleted and the time, when qualified personnel will be forthcoming from the recently formed class of students in Durban for the National Diploma for Health Inspectors, is still afar off. Before that, this Department will possibly be in sore straits for Health Inspectors. The danger of such an eventuality was clearly foreseen, at the time it was decided to introduce the new syllabus leading to the National Diploma for Health Inspectors, but unfortunately little heed was given to such misgivings in the quarters concerned.

This Department endeavours to maintain a complement of twelve trainee health inspectors, who are designated Health Assistants. The duties of these employees are wholly related to health inspection. They work in close contact with and under the supervision of the health inspectorate. Thus, they are afforded ample opportunity to obtain practical experience in the work of a Health Inspector whilst, at the same time, rendering valuable assistance to the qualified staff. It is from this group of trainees that many of the present Health Inspectors in the Department have come. However, unless these trainees can obtain the required academic instruction it will prove difficult to recruit and retain suitable young men who wish to follow the career of Health Inspector. After much spadework by this Department, it is pleasing to record that there is now every prospect of a course being established at the Natal Technical College in 1966.

The filling of health visiting posts has presented little anxiety during the year, except in regard to Indian health visitors. The absence of a course locally for non-European health visitors results in a good deal of hardship to non-European nurses who are desirous of obtaining this qualification, as may be instanced by the fact that three of this Department's Indian Nurses had to forego ten months

employment in order to take the non-European Health Visitor's Course at Kimberley.

Review of Municipal Departments

At its meeting held on 1st March, 1965, the City Council resolved that the principle be accepted that a special review of all activities of Municipal Departments be undertaken as soon as possible and that all Heads of Departments be directed to undertake (as a high priority) an investigation of their Departments in the fullest possible collaboration with the Organisation and Methods Officer and to report thereon as soon as possible.

The investigation in the City Health Department was carried out by the Deputy City Medical Officer of Health and the Principal Assistant (Administration). The report submitted by these officers was of a very comprehensive nature and the recommendations therein, which met with my approval, have in large measure, been adopted during the year and it is anticipated that the balance of these will be put into effect in the coming year.

Amendments to Staff Establishment

As an outcome of proceedings under the Industrial Conciliation Act, a post of Senior Health Visitor was re-designated Deputy Chief Health Visitor and regraded accordingly.

For a considerable time past it has been the policy, whenever suitably qualified non-European personnel were available, to engage such staff in the provision of health services to the several non-European communities in this City with a view, in due course, to such services being undertaken entirely by members of the appropriate race group. In pursuance of that policy it was decided to create two positions of non-European Senior Health Visitor (One Indian and one Bantu). After a period of training, full responsibility for running a clinic will be delegated to these Health Visitors.

The undermentioned new positions were authorised by the City Council and, where necessary, the approval of the Secretary for Health for part-refunds in terms of the Public Health Act was obtained. The new Indian posts were primarily intended for expanded services in the new Chatsworth Indian Township.

Section	Group	Designation of Post	No.of Posts	Remarks
A. <u>ADDITIONS</u>				
<u>Child Health</u>	European	Clinic Assistant	2	Conversion of 2 posts of Lady Assistant on Administration establishment
		Deputy Chief Health Visitor	1	Replaces a position of Senior Health Visitor
		Senior Health Visitor	1	Replaces a position of Health Visitor
	Coloured	Nurse Aide	1	

Section	Group	Designation of Post	No. of Posts	Remarks
<u>Child Health</u> (Contd.)	Indian	Nurse Aide	1	
		Senior Health Visitor	1	Replaces a position of Health Visitor (Indian)
		Health Visitor	2	
		Nurse Aide (Female)	3	
	Bantu	Nurse Aide	1	
		Interpreter/Cleaner	1	Replaces a position of Labourer (Bantu)
		Nurse Aide	1	Replaces a position of Health Assistant (Bantu)
		Senior Health Visitor	1	Replaces a position of Health Visitor (Bantu)
	European	Senior Health Inspector	1	Food Hygiene duties
		Health Inspector	2	Slums clearance duties
<u>Health Inspection</u>	Indian	Health Assistant	2	
<u>Field Hygiene</u>	European	General Assistant	1	
	Indian	Labourer	12	Absorbed 5 supernumerary Indian Labourers
<u>Administration</u>	European	Clerk (Gr.I)	1	For Epidemiology Sub-Section
<u>Tuberculosis</u>	Bantu	Health Assistant	1	
	European	Operator X-ray	1	
	Indian	Health Assistant	2	
<u>Health Education</u>	Indian	Junior Lecturer	1	
<u>B. DELETIONS</u>				
<u>Child Health</u>	European	Clinic Assistant	2	Replaced by three posts of non-European Nurse Aide
		Senior Health Visitor	1	Replaced by post of Deputy Chief Health Visitor
		Health Visitor	1	Replaced by post of Senior Health Visitor
	Indian	Health Visitor	1	Replaced by post of Senior Health Visitor

Section	Group	Designation of Post	No.of Posts	Remarks
<u>Child Health (Ctd)</u>	Bantu	Health Visitor	1	Replaced by post of Senior Health Visitor
		Health Assistant	1	Replaced by post of Nurse Aide (Bantu)
		Labourer	1	Replaced by Interpreter/Cleaner
<u>Adminis- tration</u>	European	Lady Assistant	2	Replaced by 2 Clinic Assistants (European)

Non-European Salaries and Wages

In pursuance of a policy of improving the remuneration of Municipal non-European employees, which has been followed for the past few years, the City Council approved of a further uplift of salaries and wages early in the year.

As regards personnel whose emoluments are subject to part-refund in terms of the Public Health Act, the Secretary for Health approved of certain improvements.

The enhanced rates of remuneration will not only facilitate the filling of vacancies with personnel of the desired calibre but also provide an incentive to existing employees to qualify for promotion to higher-graded posts.

Tropical Hygiene Allowance

The City Council adopted a recommendation to the effect that Health Inspectors who hold the Tropical Hygiene Certificate be paid an allowance in accordance with State Department of Health Circulars.

Additional Public Health Qualifications

It is fitting here to record the initiative displayed by many members of the staff, both field and administrative, in studying for and obtaining additional public health qualifications. The knowledge so gained will undoubtedly prove valuable to these employees in the execution of their normal duties.

STAFF ESTABLISHMENT

Section and Position	No.	Incumbent/Remarks
<u>EXECUTIVE</u>		
City Medical Officer of Health	1	Dr. C.R. Mackenzie, M.B., B.Ch., D.P.H., D.T.M.&H.
Deputy City Medical Officer of Health	1	Dr. G.L. Hilton-Barber, M.B., Ch.B., D.P.H.

Section and Position	No.	Incumbent/Remarks
Assistant Medical Officer of Health	2	Dr. N.L. Becker, M.B., Ch.B., D.P.H. Dr. M.G. van Schalkwyk, M.B., Ch.B., D.P.H. (from 28.7.65)
<u>ADMINISTRATION</u>		
(a) <u>European</u>		
Principal Assistant (Admin.)	1	Thomson, A.H. (M.R.S.H.)
Senior Assistant (Financial)	1	Donkin, F.D.
Senior Assistant (Technical)	1	Poplett, D.J. (M.R.S.H.)
Chief Clerk (Grade I)	1	Kibble, G.A. (Cert.R.S.H.)
Chief Clerk (Grade II)	1	Dyer, R.B. (Cert.R.S.H.)
Senior Clerk (Grade II)	4	
Clerk (Grade I)	6	
Clerk (Grade II)	6	
Principal Lady Assistant	2	
Senior Lady Assistant	2	
Lady Assistant	8	
Senior Typist	2	
Typist	4	
General Assistant (Unestablished)	1	
(b) <u>Indian</u>		
Clerk (Grade III)	1	
General Assistant	1	
Assistant	8	
(c) <u>Bantu</u>		
Health Assistant	1	
Watchman	2	
Labourer	1	
<u>EPIDEMIOLOGY</u> , embracing tuberculosis, infectious diseases and venereal diseases control:		
(a) <u>European</u>		
Senior Clinical Medical Officer	2	<u>T.B. Clinics:</u> Dr. P.R. Henson, M.R.C.S., L.R.C.P., D.P.H. Dr. M.L.D. Lowe, M.B., Ch.B., B.A.O.
X-Ray Technician	1	T.B. Clinics
Operator - X-Ray (Male)	1	" " " (Vacant)
General Assistant	2	(1 for Home Disinfection Unit) (1 Immunisation Service)
<u>Note:</u> The following staff is posted from the Health Visiting and Health Inspection Sections for full-time duty:		
<u>Tuberculosis Control:</u>		
5 Health Visitors		Field Control
2 Clinic Sisters		T.B. Clinics
1 Health Inspector		Field Control

Section and Position	No.	Incumbent/Remarks
<u>Infectious Diseases and Venereal Diseases Control:</u>		
1 Senior Health Inspector		
1 Health Visitor		
(b) <u>Indian</u>		
Health Assistant	8	Field control
Health Assistant	1)	T.B. Clinics
Nurse Aid	2)	
Interpreter/Cleaner	1)	
Labourer	1	Home Disinfection Unit
(c) <u>Bantu</u>		
Health Assistant	16	Field control
Health Assistant	1)	T.B. Clinics
Nurse Aid	2)	
Interpreter/Cleaner	2)	
<u>HEALTH INSPECTION</u>		
(a) <u>European</u>		
Chief Health Inspector	1	Johnston, M.M.
Deputy Chief Health Inspector	1	Clayton, A.
Senior Health Inspector	11	* Ashdown, N.D. *+Butler, M.W. Clark, A.G. Crickmore, C.R.A. Harris, J.K. Hornby, A.V. Ingram, W.A. * McIver, E.I. * Sutherland, F.T. (from 23.2.1965) +Young, B.J. (retired 18.1.65) 1 Vacancy
<u>Note: Allocation of Posts:</u>		
District Hygiene	6	
Food Hygiene	1	
Housing and Plans	1	
Epidemiology	1	
Dairies	1	
Field Hygiene	1	
Health Inspector	41	Alder, C.H. * Benians, P.E. *+Blair, E.A. * Booyens, M.M. * Brokenshaw, A.D. *+Burgess, D.W. * Butler, J.E. * Cannon, D.C. (from 1.2.65) * Currie, A. * Davies, O.S. *+de Villiers, P.D. +de Beer, H.H. (retired 1.6.65) * Green, C.E.O. * Griffin, R.E. *+Hazle, A.D. * Hook, T.C. (from 8.7.65) * Hogan, J.P. * Hull, V.H. *+Jakins, T.I.N. Keen, F. * Knowles, D.H. * Marsh, H.N.
<u>Note: Allocation of positions:</u>		
District and Food Hygiene	34	
Dairies	3	
Plans	1	
Epidemiology	1	
Slums	2	
	41	

Section and Position	No.	Incumbent/Remarks
		* McCawley, F.G.I. *+Moffitt, N.S. *+Newberry, N. *+Ogden, G.B. *+Pearman, E.F.J. * Phillips, L.G.F. *+Roberts, K.W.C. * Roberts, A.J.L. * Schou, M.S. * Smith, L.J. * Spence, B.D. (resigned 27.4.65) *+Spencer, D.W. * Sutherland, F.T. (Promoted to Senior Health Inspector w.e.f. 23.2.65) Vorster, J.H. *+Walsh, W.W. *+Whitaker, D.G.M. * Worthington, C. * Worthington, L.J. * Worthington, R.C. (from 1.5.65) *+Young, N.R. 2 Vacancies * Denotes Meat and Other Foods Certificate + Denotes Tropical Hygiene Certificate <u>Panel of Health Inspectors for emergency meat inspection duties at Municipal Abattoir</u> Hazle, A.D.; Roberts, K.W.C.; Spencer, D.W.
Health Assistant	12	Trainee Health Inspectors
Senior General Assistant	1)	Rodent Control
General Assistant	7)	
(b) <u>Indian</u>		
Health Inspector	2	* Hirasen, Velu (from 31.8.65) 1 Vacancy
Health Assistant	3	Rodent Control
Assistant	5	
(c) <u>Bantu</u>		
Health Assistant	2	
<u>VETERINARY HYGIENE</u>		
<u>European</u>		
Veterinary Medical Officer	1	Dr. A.J. Louw, B.V.Sc.
Laboratory Assistant	1	
Lady Assistant	1	

Section and Position	No.	Incumbent/Remarks
<u>FIELD HYGIENE</u>		
(a) <u>European</u>		
Supervisor	1	Nourse, A.D.
Senior General Assistant	1	
General Assistant	9	1 Vacancy
(b) <u>Indian</u>		
Spotter	2	
Labourer	12	
(c) <u>Bantu</u>		
Health Assistant	1	
Spotter	11	
Labourer	84	
<u>HEALTH VISITING</u>		
(a) <u>European</u>		
Chief Health Visitor	1	Eckhoff, E.J., Medical and Surgical, Midwifery, Mothercraft, Health Visitor's and School Nurse's Certificates
Deputy Chief Health Visitor	1	Rankin, M.H.E., Medical and Surgical, Midwifery, Mothercraft, Health Visitor's and School Nurse's Certificates.
Senior Health Visitor	1	ØxHarding, E. (from 25.5.65)
Health Visitor	28	ØxAnderson, E.M. Ø Barker, M.I. (retired w.e.f. 4.6.65) (Re-engaged as temporary Health Visitor 8.6.65 to 4.10.65) Ø Berghammer, A. ØxBrown, M.K. Ø Butler, M.A. x Dolkens, S. ØxEssery, M. ØxHamlyn, E.F. ØxHarding, E. (promoted to Senior Health Visitor 25.5.65) Hook, E.M. Ø Jachimsky, L.M. ØxLaue, H. Ø Lloyd, A.A.M.M. Ø Longmore, F.B. Ø Meyerstein, S.M. ØxMitchell, B.I. Ø Muller, M. Ø Norman, F.M. (retired 12.11.65) Ø Pettigrew, E. (w.e.f. 5.10.65) Ø Poulton, M.P. Ø Robinson, J.O. ØxStead, R.J.
<u>Note: Allocation of positions:</u>		
Family Health Service	19	
Epidemiology:		
T.B. Control	5	
I.D. and V.D.	1	6
Immunisation		3
		28

Section and Position	No.	Incumbent/Remarks
		Ø Sutherland, J.W. Ø Taylor, J.S. Ø Tyzack, P. Ø Ward, J. Ø Watts, D.J. Ø Webb, M.E. ØxWhiting, A. xWilde, M.A. Ø Wood, O. (w.e.f. 1.12.65)
Clinic Sister	7	Ø Banting, A.M.W. (from 1.3.65 to 7.7.65) ØxHunter, J.W. Ø Crossley, R.E. (from 4.1.65) Ø McCagie, S.M. Ø Nickson, M.A. (w.e.f. 1.12.65) Ø Pettigrew, E. (to 4.10.65) Venter, E.G. (w.e.f. 13.9.65) Ø Weston, M.A. Ø Wood, O. (to 30.11.65) Ø Wright, M.A. (w.e.f. 15.12.65) Ø Barker, M.I. (temporary Clinic Sister from 5.10.65 to 31.12.65)
<u>Note: Allocation of positions:</u> Family Health Service 3 Immunisation 2 Tuberculosis clinics 2 7		
Clinic Assistant	14	
(b) <u>Coloured</u>		
Health Visitor	2	Ø Deane, D.P.A. Ø Charles, G.T. (w.e.f. 25.2.65)
Nurse Aid	2	1 Vacant
(c) <u>Indian</u>		
Senior Health Visitor	1	Ø Reddy, R.R. (w.e.f. 25.2.65)
Health Visitor	6	Ø Manogaran, R.A. (w.e.f. 25.2.65) Ø Nair, K. Ø Reddy, T. Ø Reddy, R.R. (promoted to Senior Health Visitor 2.11.65) 3 Vacancies
Nurse	5	Ø Iyer, S. Ø Kalyani Ø Paul, M.G.J. Ø Papiah, R.F. Ø Shunmugam, M.
Nurse Aid	18	
General Assistant	1	
Interpreter/Cleaner	6	
(d) <u>Bantu</u>		
Senior Health Visitor	1	Vacant
Health Visitor	18	Ø Bengu, M.

Section and Position	No.	Incumbent/Remarks
		Ø Charles, G.T. (to 24.2.65. See also under Coloured establishment) Ø Dotwana, H.B. Ø Kgoare, L. Ø Mkize, L.D. Ø Moholo, D.V. Ø Malamba, M.V. Ø Mlambo, S. Ø Mazibuko, P.A. Ø Mkwanaazi, K. Ø Nala, N. Ø Nkabinde, I. Ø Ntaka, E.N. (w.e.f. 13.7.65) Ø Ngqulunga, O.G. Ø Ndlovana, M.N. Ø Sibiya, F. Ø Tsekiso, A. Ø Zulu, K.M.
Nurse Aid	10	
Interpreter/Cleaner	6	
<u>IMMUNISATION</u>		
<u>Note:</u> European staff comprising - 3 Health Visitors, 2 Clinic Sisters and 2 Clinic Assistants is posted to this Section from the Health Visiting Section on a full-time basis. The services of Part-time Medical Officers, appointed to a panel, are employed on a sessional basis.		
(a) <u>Indian</u>		
Nurse	2	Ø Anthony, A. Ø Baboo, C.
Health Assistant	4	
(b) <u>Bantu</u>		
Nurse	2	Putini, D. Ø Ntaka, E. (to 12.7.65) Ø Nyembezi, M. (w.e.f. 21.9.65)
Health Assistant	4	Ø Denotes Midwifery Certificate x Denotes Mothercraft Certificate
<u>FAMILY HEALTH (CHILD HYGIENE) SERVICE</u>		
Senior Clinical Medical Officer	1	Dr. H.A.B. Pletts, M.B., B.Ch.

Section and Position	No.	Incumbent/Remarks
Clinical Medical Officer	1	Dr. E.M. Fisher, M.B., B.Ch. (from 4.1.65)
Part-time Clinical Medical Officer	4	Dr. L.E.J. Chapman, B.Sc., M.B., B.Ch., D.P.H. (w.e.f. 30.8.65) Dr. E.K. McDonald, M.B., Ch.B. Dr. M. Ness Dr. W.F.J. Rathgeber (locum tenens for various periods w.e.f. 9.2.65) 1 Vacancy
Part-time Medical Specialist	1	Dr. L. Raftery, F.R.C.O.G., M.M.S.A., M.R.C.S., L.R.C.P.
<u>EXFOLIATIVE CYTOLOGY</u> (Prevention of Uterine Cancer)		
(a) <u>European</u>		
Municipal Consultant	1	Professor Derk Crichton, M.B., Ch.B., D.Phil., F.R.C.S., F.R.C.O.G.
Part-time Laboratory Technician	1	
(b) <u>Indian</u>		
Health Assistant	1	
<u>MATERNAL AND FAMILY WELFARE</u>		
(a) <u>European</u>		
Part-time Clinical Medical Officer	1	Dr. A.M. Moller (re- signed 18.1.65) Dr. P. Kirtle, M.B., B.S., (from 4.1.65)
(b) <u>Indian</u>		
Nurse	1	Thrapshay, G. (termin- ated 18.11.65)
<u>HEALTH EDUCATION</u>		
(a) <u>European</u>		
Health Educator	1	Goddard, Miss E.
Technician	1	Godfrey, D.M.
General Assistant	2	
(b) <u>Coloured</u>		
Lecturer	1	
(c) <u>Indian</u>		
Lecturer	1	
Junior Lecturer	4	

Section and Position	No.	Incumbent/Remarks
(d) <u>Bantu</u>		
Lecturer	2	
Assistant Lecturer	1	
Junior Lecturer	4	
<u>NON-EUROPEAN HEALTH AND MEDICAL SERVICES</u>		
<u>Venereal Diseases Clinics</u>		
(a) <u>European</u>		
Senior Clinical Medical Officer (City Venereologist)	1	Dr. A.A. Wailer, M.R.C.S., L.R.C.P.
Clinical Medical Officer	1	Dr. J.H. Meiring, M.B., Ch.B.
(b) <u>Bantu</u>		
Medical Officer	1	Dr. C.N. Dhlamini, L.R.C.P., L.R.C.S., L.R.F.P.S.
Nurse	4	Cele, M. Emerson, R. Ø Mangole, B. Ø Nxumalo, V.
Health Assistant	9	
Interpreter/Cleaner	1	
<u>MEDICAL BUREAU</u>		
Senior Clinical Medical Officer	1	Dr. M. Casson, M.D., M.R.C.S., L.R.C.P.
<u>TOTAL STAFF ESTABLISHMENT</u>		
European	206	(Includes 1 unestablished and 8 part-time appointments)
Non-European	288	
	<u>494</u>	

FINANCIAL SUMMARY

An abbreviated schedule of the actual cost of the services undertaken by the City Health Department for the financial year ended 31st July, 1965, is shown below:-

Expenditure

	<u>1964/65</u>	<u>1963/64</u>
Salaries, Wages and Allowances	R638,666	R574,492
Drugs and Medical Requisites	15,598	15,626
Tuberculosis Hospitalisation - (Government Hospitals: Net Cost)	37,481	39,617
(Other Hospitals: Gross Cost)	167,903	161,576
Hospitalisation Infectious Diseases and Venereal Diseases	33,710	31,708
Transport and Subsidised Locomotion	45,205	43,975
Miscellaneous, including Rents, Insurance, Telephones, Stationery, etc.	202,430	162,222
	<hr/> R1,140,993	<hr/> R1,029,216

Income

General, including hospital fees recovered	R42,436	R32,308		
Government refunds under Public Health Act	377,524	345,908		
Health Services debited to Bantu Hostels and Locations	99,171	93,012	519,131	471,228
	<hr/>	<hr/>	<hr/>	<hr/>
		<u>Nett Cost:</u>	R621,862	R557,988
			<hr/>	<hr/>

Capital expenditure is not included in the above schedule.

R E P O R T "B"

HOUSING

1. POPULATION

The estimated population for the City of Durban as at 31st December 1965 was as follows:

Europeans	178,500	(27.20%)
Coloureds	29,000	(4.42%)
Indians	250,531	(38.18%)
Bantu	198,191	(30.20%)
	<u>656,222</u>	

2. EUROPEAN HOUSING

The allocation of houses and flats in the City Council's selling and letting schemes is undertaken by the City Treasurer (Housing Section) who advised that the applications for accommodation on hand at the year end were :

Purchasing schemes	1,216
Letting schemes	<u>1,332</u>
Applications	<u>2,548</u> (not families)

Accommodation units which became available for occupation in Municipal schemes comprised 380, made up as follows:

Loan and Selling Schemes, Private Powers	40
Selling Scheme - Woodlands	226
Sub-economic Letting Schemes	114

Factors which materially influenced the demand for accommodation in Municipal schemes, as regards eligibility and individual preference and resources, were the wide range in selling price or variation in rentals or loan repayments. As an illustration, 96 four-roomed dwellings completed at Woodlands during the year varied in cost between R4632 and R5085 with monthly instalments ranging from R24.57 to R27.02, whereas in the case of 140 flats varying from 2 to 3 rooms, the rentals ranged from R34 to R43. Priority considerations were largely determined by an individual's income and family size. For example, an income not exceeding R250 per month with three or more children was an acceptable qualification for purchasing schemes. Thus disqualifying factors included sub-economic status, the higher income groups and limitations in the number of children, and such categories of persons in need of re-accommodation were compelled to seek relief from the charitable or private sectors.

Other Municipal developments were in the planning, construction or completion stages but the record is incomplete without recognition of the part played by the Government Department of Community Development. The Regional Representative of that Department advised in respect of 1965 as follows:

- (i) Three blocks of flats comprising 71 units became available for the economic group.
- (ii) Contracts were granted for the construction of 180 house and flat units for the R200 per month and over income categories, of which 15 houses were completed.
- (iii) Towards the year end tenders were invited for a further 210 houses and flats for the same category of occupant.
- (iv) As a result of rehousing disqualified race groups, 220 houses and flats became available for occupation by Europeans, after repair and renovation.
- (v) Due to a paucity of land available for residential development within the City the Department was compelled to acquire land outside the Durban boundaries and as a result 86 houses were constructed within the Borough of Pinetown and 70 at Yellowwood Park.

Private enterprise also made a substantial contribution to the overall housing position and 2,134 dwelling units became available. Plans lodged for approval in 1965 furthermore envisaged the provision of some 58 blocks of residential flats (1,813 units) and the erection of 321 houses. The private field, however, was unable to maintain progress owing to the "credit squeeze" despite encouragement from the State in the form of curtailment of luxury accommodation and non-essential constructions.

Notwithstanding the aforesaid developments the general picture showed little improvement in the housing state and a shortage of accommodation was evident in a number of sectors. Estate agents still had on their books long waiting lists especially for occupation of rent-controlled accommodation. The trend with respect to the ordinary middle income group was a preference for flats, but houses to let in the R70-R80 per month category were very much at a premium.

3. COLOURED HOUSING

The Coloured community comprises 4.42% of the estimated population of the City, and this figure represents a very slight increase as compared with 1964 (4.38%). In terms of a Group Areas Proclamation, this section of the community is confined to three areas within the City. Their housing requirements present a serious problem. The Group Areas allocations have been inadequate and it has become necessary to seek the assistance of the Government for the allocation of further land outside the City.

The City Council, appreciative of their housing needs have prepared plans for additional accommodation. It is regrettable, however, that progress in respect of National Housing Commission's approval has been very slow.

According to information provided by the City Treasurer, the number of Coloured housing applications as at the 31st December, 1965, was as follows:

Purchasing Schemes	840
Letting Schemes	445

During the year 13 families were assisted by the City Council under loan and selling schemes. When the overall Coloured housing position is viewed it will be seen that from 1929 up to the 31st July 1965, the Council had provided 971 houses, 64 flats, 1 home and 2 hostels at a total cost of R2,487,363.

The Regional Representative of the Department of Community Development has advised that his Department is fully aware of the acute shortage of accommodation for Coloureds. To alleviate this position, urgent steps were taken to convert the former Ack-Ack Camp on the Bluff into 51 flat units. Twelve units were completed and allocated at the end of the year, the balance being due for completion early in 1966.

High priority was given to the planning of the extension of the Wentworth Government Village with a view to accommodating approximately 1,400 additional Coloured families. A contract for the necessary site works, viz. the laying of roads and stormwater drains, was allocated during the year as a preliminary step to the actual construction of the houses.

Privately promoted housing development for Coloureds has been negligible.

4. INDIAN HOUSING

The Indian community continues to remain the largest race group within the City, comprising 39.18% of the total estimated population. At the end of 1964 it comprised 37.95% of the total of the estimated population, thus representing an increase of .23% or 6,576 persons in one year.

In dealing with the housing problem for the Indian community the City Engineer revealed that a recent survey and appraisal of this situation indicated that there was a present shortage of some 17,000 housing units and even after this backlog had been eliminated, in approximately five years' time, there would be a need to continue building at the rate of 2,000 units per annum for an indefinite period. Coupled with this difficulty is the fact that probably over 90% of the Indians are in the sub-economic income bracket and cannot afford substantial rentals and high costs of daily transport.

Details provided by the City Treasurer lend support to the above view. The demand for housing based upon the number of applications recorded as at the 31st December, 1965, were :-

Purchasing schemes	7,804
Letting schemes	<u>2,435</u>
Total:	<u>10,239</u>

Despite delays and hold-ups due to shortage of building materials, labour and various other uncontrollable factors, the City Council continued to play a major role in providing housing facilities at Chatsworth Indian Township. Up to the end of 1965 the units of accommodation completed under the City Council's housing schemes were :

Loan and Selling Schemes, Private Powers	82
Sub-Economic Letting Schemes	<u>1,784</u>
	<u>1,866 units</u>

It is interesting to note that the City Council first embarked on Indian housing in 1939, and developed housing schemes in various areas within the City so that at the 31st July 1965 17,889 houses/dwelling units had been built at a cost of R28,911,894.

The Regional Representative, Department of Community Development, has advised that the resettlement of Indians presents a major problem in view of the fact that large numbers of this race group still reside in White and Coloured proclaimed areas. A number were resettled in the houses made available by the Durban Corporation in its Chatsworth housing scheme. In addition, the Department of Community Development pressed forward with its project to provide 200 houses in Silver Glen. The lack of services in Zones 1 and 2 was overcome by making available to the Durban Corporation a loan of R628,000 which enabled the Corporation to provide the services during 1965. That Department consequently expects to be in a position to invite tenders for houses early in the new year. During the year under review, the Department resettled 848 Indian families in their respective group area in Durban.

A pleasing feature in respect of the Indian community is that certain members are able to promote or develop their own housing requirements. During the past year building plans for 448 houses and 20 blocks of flats comprising 280 dwelling units were approved by the City Council. This accommodation totals 728 dwelling units.

5. HOUSING UNITS COMPLETED DURING 1965

Tabulated hereunder is a summary reflecting the units of accommodation for the various racial groups completed under the City Council's housing schemes during the 1965 calendar year :-

Race Group	Loan and Selling schemes. Private Powers	Selling Scheme Woodlands	Sub-Economic Letting Schemes
European	40	226	114
Coloured	13	-	-
Indian	82	-	1,784
Total	135	226	1,898

Grand Total = 2,259 units of accommodation.

6. BANTU HOUSING

During the year the new style "shared-houses" (K.4G) became available for occupation at kwaMashu. These 4-roomed houses are so designed that at present they house 2 families each, but at a later stage can be converted to single family dwellings merely by breaking doorways through the dividing walls. One thousand one hundred and nineteen shared-houses accommodating 2,238 families were completed and handed over to the Department

of Bantu Administration by the 31st December 1965, as also were 784 additional hostel beds for single males at kwaMashu. This latter brought the hostel accommodation up to 13,408 beds. A further 10 better type houses were also completed. It is pleasing to report that the construction of wooden hut type of accommodation was halted. The intention in so far as these houses were concerned was a life of five years, and now having completed their original purpose they are currently being demolished to make way for permanent brick houses.

The estimated population of kwaMashu as at the end of the year was 97,000 persons and the housing position was :-

4-roomed houses	7,744
2-roomed houses	2,593
Shared-houses	1,119
Better type houses	29

giving a total of 11,485 housing units and hostel accommodation comprising 13,408 beds. The bulk of the families housed in this township originally occupied shacks in the Cato Manor Emergency Camp and surrounding areas.

The City Engineer's Department, acting as agents of the South African Bantu Trust, has continued to develop the Umlazi Bantu Township. This project is situated to the South of and without the City boundary. An area of 7,500 acres has been set aside for this purpose. When completed the township will contain 18 neighbourhood units with a total of 22,000 houses. At the year's end 6,658 houses were completed and accommodation in the form of 7,882 hostel beds were available. A start was also made on a large Township Centre, and special buildings including schools, creches, shops, market stalls and sporting amenities were in the course of construction or in the planning stage. An 18-hole golf course and other sports fields are envisaged. A railway line is to pass through the Township; meanwhile bus transport provides a feeder service to the nearest railway station and the City.

This Umlazi scheme when complete will be slightly larger than kwaMashu and the estimated population is over 120,000 persons.

Road development in the City has necessitated the demolition of a portion of the Dalton Road Bantu Hostel.

Summary of Bantu Housing - Locations/Townships

	<u>No. of Houses</u>	<u>Estimated Population</u>
1. Chesterville	1,265	9,300
2. Lamont (Sub-Economic)	1,911)	.
3. Lamont Extensions (Economic)	851)	20,700
4. Umlazi Glebe	748	5,000
5. kwaMashu	11,485	83,592
	<u>16,260</u>	<u>118,592</u>



PROPOSED SLUM CLEARANCE: DWELLINGS BEFORE AND
AFTER EXTENSIVE RENOVATION



- Hostels and Dormitories

1.	Dalton Road	- Males	1,451 beds
2.	Grey Street	- Females	687 "
3.	Jacobs	- Females	32 "
4.	Jacobs	- Males	828 "
5.	S.J. Smith	- Males	4,602 "
6.	kwaMashu	- Males	13,408 "
			<hr/> 21,008 <hr/>

The estimated total number of Bantu housed by the Durban Municipality was therefore 129,600. A summary of essential information in respect of locations forms an appendix to this report.

7. SLUM CLEARANCE

The Slums Amendment Act, No. 55 of 1963 came into effect as from 1st January 1964, the main object being to stimulate slum clearance. But due to staff shortages and other administrative factors it was not possible to initiate proceedings before the second half of 1965. By that time the Slum Clearance Court for the Durban district had been established under the aegis of the State Department of Community Development and it had held thirteen sessions involving 31 properties by the year end. Twenty-seven premises formed the subject of Declarations where demolition was ordered, and the balance of four were renovated to the satisfaction of the local authority.

The introduction of this new legislation paved the way for more active steps against slum nuisances and despite the small number of cases brought to Court in 1965 the Department actually surveyed and processed to an advanced stage 72 premises for presentation the following year. It is interesting to record that a number of owners of "slum-type" premises took the initiative when warned of the probability of Slums Act proceedings and voluntarily demolished or undertook major renovations to avoid Declarations. In this manner two semi-detached European occupied dwellings* at Umbilo were extensively renovated without the necessity for recourse to the Court, as the accompanying photographs illustrate. *(4 units)

These activities were regarded as a satisfactory inauguration of slum clearance and a renewed phase of the Department's work. Now that the initial stage was over and there were definite prospects of Slums Inspectorate expansion in the forthcoming year an improved position should be achieved in the abatement of slum nuisances provided, of course, the situation in regard to alternative housing remains reasonable.

8. DEMOLITIONS AND CONVERSIONS

Applications to the City Council for the Minister's consent to demolish or convert premises in terms of the Housing Act numbered 186. At the time of application 140 of these houses were occupied or owned by Europeans, 31 by Indians and 14 by Coloureds. Investigation disclosed that 85 properties were actually occupied by tenants, in

which case departmental recommendations were conditional upon the suitable re-accommodation of the tenants concerned. Of the remainder, 60 premises were vacant and 41 were owner/occupied.

Applications for permission to demolish or convert were made with the undermentioned projects in view:-

Flat development	58
Commercial usage	42
Industrial purposes	42
Hotel development or extension	3
No development	14
Rebuilding in brick	20
Rebuilding as maisonettes	4
Religious purposes	2
Total:	<u>185</u>

9. BUILDING PLANS

A total of 3,606 building plans were submitted to this Department for examination during the year. The total cost of the buildings involved was assessed at R41,524,747. In comparison with the year 1964, this represents a decrease of 35 building plans, and an increase of R1,406,547 in the assessed costs of the buildings.

The Department's role in examining building plans is to ensure compliance with the various By-laws and requirements of the Department embodied in codes of practice.

The types of structures are detailed as follows:-

Type of Structure	No. of Plans	No. of Units	Estimate of Costs
<u>Private Dwellings</u>			
1 and 2 rooms	3	3	
3 rooms	33	33	
4 rooms	252	252	
5 rooms	315	315	
6 rooms and over	166	166	
Total new dwellings	769	769	R5,444,707
<u>New Flats</u>			
1 room		235	
2 rooms		758	
3 rooms		744	
4 rooms and over		356	
Total	78	2,093	R8,052,555
Total Dwelling Units	847	2,862	R13,497,262

Type of Structure	No.of Plans	No.of Units	Estimate of Costs
Other residential buildings	5		R300,600
New Industrial and Commercial Buildings	89		R7,826,340
Other new buildings	35		R812,500
New State and Municipal buildings	12		R8,199,118
Additions to residential buildings	1,728		R1,821,971
Additions to non-residential buildings	842		R7,948,534
Additions to State and Municipal buildings	48		R1,118,422
Total (excluding Flats and Dwellings)	2,759		R28,027,485
Grand Total	3,606	2,862	R41,524,747

10. GENERAL

The Interdepartmental Committee on Housing, comprising the City Engineer (Chairman), the Town Clerk, the City Treasurer, the City Medical Officer of Health, the City Valuator and, where necessary, the City Electrical Engineer, the Director, Bantu Administration, met on a number of occasions. This Committee has proved of exceptional value, reduced interdepartmental correspondence and enabled many matters of mutual interest to be dealt with expeditiously. Problems ranging from the slum clearance work of this Department to bug clearance in housing schemes all received attention.

APPENDIX

SUMMARY OF ESSENTIAL INFORMATION RELATIVE TO LOCATIONS ETC.

Location or Township	Year Completed	Houses		Water Supply	Sanitation	Ablutions	Remarks
		Economic	Sub-Economic				
Chesterville	1964	-	1,265	Individually piped	Water borne	Showers to each house	Mother and Baby Clinic twice weekly
Lamont Lamont Extension	Virtually	-	1,911	-do-	-do-	Showers to each house plus 178 communal washing gullies	Mother and Baby Clinic daily
	-do-	851	-	-do-	-do-		
Umlazi Glebe	-do-	10	738	Communal Standpipes	Pit and Aqua privies	Communal shower houses	Mother and Baby Clinic twice weekly
kwaMashu	Still being developed	11,485	-	Piped individually	Water borne	Showers to each house	Mother and Baby Clinic daily. 2 Clinics established.

Chesterville Location is provided throughout with electrical power as are all hostels and dormitories. Electrical power is available in all other locations and townships. Certain of the residents have taken advantage of this amenity. The Clinics are conducted by the City Health Department.

REF.	CAUSE OF DEATH	DETAILED LIST NUMBERS	EUROPEAN			COLOURED			BANTU			ASIATIC			TOTALS		
			M.	F.	Total	M.	F.	Total	M.	F.	Total	M.	F.	Total	M.	F.	Total
A 78	All Other Diseases of the Nervous System and Sense Organs	341-344, 350-352, 354-369, 380-384, 386, 388-390, 394-398	7	4	11	7	2	2									
A 79	Rheumatic Fever	400-402	1	4	1												
A 80	Chronic Rheumatic Heart Disease	400-402	2		6												
A 81	Arteriosclerotic and Degenerative Heart Disease	400-416															
A 82	Other Diseases of Heart	420-422	284	154	438	436	3	13									
A 83	Hypertension with Heart Disease	430-434	58	62	120	95	6	10									
A 84	Hypertension without Mention of Heart	440-443	10	19	29	33	1	4									
A 85	Disease of Arteries	444-447	2		2	3	3	1									
A 86	Other Diseases of Circulatory System	450-456	27	11	38	31	2	2									
A 87	Acute Upper Respiratory Infections	460-468	15	19	34	25	1	2									
A 88	Influenza	470-475															
A 89	Lobar Pneumonia	480-483	12	11	23	15	3	7									
A 90	Broncho Pneumonia	490	85	66	151	120	8	28									
A 91	Primary Atypical, Other and Unspecified Pneumonia	492, 493	1	2	3	3											
A 92	Acute Bronchitis	500	2		2	2	1	1									
A 93	Bronchitis, Chronic and Unqualified	501, 502	11	4	15	12	2	2									
A 95	Empyema and Abscess of Lung	518, 521		1	1	3											
A 96	Pleurisy	519															
A 97	All Other Respiratory Diseases	511-517, 520, 522-527	26	19	45	46	2	3									
A 99	Ulcer of Stomach	540	4	2	6	5	1	1									
A 100	Ulcer of Duodenum	541	2		2	7											
A 102	Appendicitis	550-553															
A 103	Intestinal Obstruction and Hernia	560, 561, 570	3	4	7	5											
A 104	Gastro-Enteritis and Colitis, Except Diarrhoea of the Newborn	571, 572	10	5	15	13	7	14									
A 105	Cirrhosis of Liver	581	13	5	18	18	1	1									
A 106	Cholelithiasis and Cholecystitis	584, 585	1		1	2											
A 107	Other Diseases of Digestive System	536-539, 542, 544, 545, 573-580, 582, 583, 586	10	10	20	30	5	5									
A 108	Acute Nephritis	590		1	1	2											
A 109	Chronic Other and Unspecified Nephritis	591-594	8	6	14	15	1	1									
A 110	Infections of Kidney	600	8	4	12	10	2	2									
A 111	Calculi of Urinary System	602, 604	1		1	1											
A 112	Hyperplasia of Prostate	610	2		2	2	1	1									
A 114	Other Disease of Genito-Urinary System	601, 603, 605-609, 611-617, 622-637	1		1	1											
A 115	Sepsis of Pregnancy, Childbirth and the Puerperium	640, 641, 681 682, 684															
A 116	Toxaemias of Pregnancy and the Puerperium	642, 652, 685, 686					2	2									
A 117	Haemorrhage of Pregnancy and Childbirth	643, 644, 670-672		1	1												
A 118	Abortion without mention of Sepsis or Toxaemia	650		2	2	1	1	1									
A 119	Abortion with Sepsis	651				1											
A 120	Other Complications of Pregnancy, Childbirth and the Puerperium	645-649, 673-680, 683															
A 121	Infections of Skin and Subcutaneous Tissue	687-689															
A 122	Arthritis and Spondylitis	690-698		2	2	1											
A 124	Osteomyelitis - Periostitis	700-725		1	1												
A 126	All Other Diseases of Skin and Musculoskeletal System	700-716, 731-736				2											
A 127	Spina Bifida and Meningocele	728-744															
A 128	Congenital Malformations of Circulatory System	751															
A 129	All Other Congenital Malformations	754	5	1	6	4	1	1									
A 130	Birth Injuries	750, 752, 753, 755-759	2	3	5	11											
A 131	Postnatal Asphyxia and Atelectasis	760, 761	3	1	2	9	1	1									
A 132	Infections of the Newborn	762	3	2	5	4	4	6									
A 133	Haemolytic Disease of the Newborn	763-768	1	2	3	3	1	2									
A 134	All Other Defined Diseases of Early Infancy	770	1	2	2	1	1	2									
A 135	Ill-defined Disease Peculiar to Early Infancy and Immaturity Unqualified	769, 771, 772				1	1	1									
A 136	Senility Without Mention of Psychosis	773-776	23	8	31	34	7	14									
A 137	Ill-defined and Unknown Causes of Morbidity and Mortality	780-793, 795	49	59	108	91	19	35									

REF.	CAUSE OF DEATH	DETAILED LIST NUMBER	EUROPEAN				COLOURED				BANTU				ASIATIC				TOTAL													
			M.		F		Total		1964		M.		F.		Total		1964		M.		F.		Total		1964		M.		F.		Total	
AE 138	Motor Vehicle Accidents	E810-E835	30	11	41	47	10	2	12	11	66	8	74	64	38	13	51	26	144	34	178	148										
AE 139	Other Transport Accidents	E800-E802, E840-E866	2		2	5					85	20	105	16	1	2	3	1	88	22	110	22										
AE 140	Accidental Poisoning	E870-E895									6	1	7	2	1	1	1	1	7	1	8	3										
AE 141	Accidental Falls	E900-E904	5		5	6	1		1	1	11	1	12	10	4	3	7	3	21	4	25	20										
AE 142	Accident Caused by Machinery	E912	1		1									1				1	1	1	1											
AE 143	Accident Caused by Fire and Explosion of Combustible Material	E916				1		2	2		1	3	4	4	1	4	5	9	2	9	11											
AE 144	Accident Caused by Hot Substance, Corrosive Liquid, Steam and Radiation	E917, E918								1	4	3	7	4	1	2	3	4	6	6	12											
AE 145	Accident Caused by Firearm	E919	1	1	2									1					1	1	1											
AE 146	Accidental Drowning and Submersion	E929	5		5	7	2	1	3	1	15		15	12	9	3	12	15	31	4	35											
AE 147	All Other Accidental Causes	E910, E911, E913-E915, E920-E928, E930-E965	9	2	11	6	6	2	8	2	47	9	56	27	13	6	19	20	75	19	94											
AE 148	Suicide and Self-Inflicted Injury	E970-E979	22	4	26	28	3	3	6	5	5	5	10	9	12	9	21	6	42	21	63											
AE 149	Homicide and Injury Purposely Inflicted by Other Persons (Not in War)	E980-E985	5	3	8	5	5	1	6	3	70	16	86	41	11	1	12	5	91	21	112											
	TOTALS		1065	821	1886	1739	159	123	282	242	1648	1122	2770	2300	1066	766	1832	1781	3938	2832	6770	6062										
	CRUDE DEATH RATES		10.57 (9.91)				9.72 (8.59)				13.93 (11.77)				7.31 (7.30)				10.32 (9.43)													

CAUSES OF DEATH IN RESPECT OF INFANTS (UNDER 1 YEAR)

APPENDIX "B"

(Classified according to International Intermediate List of 150 Causes from Sixth Revision, World Health Organisation, 1948)

REF.	CAUSE OF DEATH	DETAILED LIST NUMBERS			EUROPEAN			COLOURED			BANTU			ASIATIC			TOTALS				
		M.	F.	Total	1964	M.	F.	Total	1964	M.	F.	Total	1964	M.	F.	Total	1964	M.	F.	Total	
A 1	Tuberculosis of Respiratory System Tuberculosis of Meninges and Central Nervous System Tuberculosis, All Other Forms Congenital Syphilis Dysentery, All Forms Septicaemia and Pyaemia Diphtheria Whooping Cough Meningococcal Infections Tetanus Measles All Other Disease Classified as Infective or Parasitic																				
A 2		001-008									1	3	4	6					1	3	4
A 5		010									1	4	5	1					1	6	7
A 6		014-019									2	1	3	4					2	2	4
A 16		020									6	3	9	1					6	5	11
A 20		045-048												5							
A 21		053												1							
A 22		055												1							
A 23		056												1							
A 26		057												1							
A 32		061									1	15	16	8					2	1	3
A 43		085				1							31	18					16	19	35
A 57		036-039, 049, 054, 059, 063-074, 086-090, 093, 095, 096, 120-122, 131-138, 155-160, 164, 165, 175, 176, 178-181, 192-195, 198, 199																			
A 64		280-286																			
A 65		290-293												16					1	8	14
A 66		240-245, 253, 254, 270-277, 287-289, 294-299											1	1						6	1
A 70	Ayitaminosis and Other Deficiency States Anaemias																				
A 71	Allergic Disorders: All Other Endocrine, Metabolic and Blood Diseases																				
A 78	Vascular Lesions Affecting Central Nervous System	1		1						2	1	7	15	2	1	1	4	1	1	2	
A 82	Nonmeningococcal Meningitis																				
A 84	All Other Diseases of the Nervous System and Sense Organs																				
A 85	Other Diseases of Heart	1		1									1	2				3	3	3	
A 87	Hypertension without Mention of Heart Diseases of Arteries																	1	1	1	
A 88	Acute Upper Respiratory Infections											1	1								
A 89	Influenza																				
A 90	Lobar Pneumonia	1		1						1	6	10	6	3				11	7	18	
A 91	Broncho Pneumonia	4	1	5	3	5	2	7	8		66	122	98	32			75	107	87	194	
A 92	Primary Atypical, Other and Unspecified Pneumonia																				
A 93	Acute Bronchitis																				
A 97	Bronchitis Chronic and Unqualified				1				1		3	4	7	2			5	3	5	8	
A 103	All Other Respiratory Diseases											5	4				3	3	6	11	
	Intestinal Obstruction and Hernia	1		1	1			1			1	1	1				1	1	2	3	

A 104	Gastro-Enteritis and Colitis, Except	571, 572	9	4	13	4	13	10	118	93	211	202	66	41	107	84	200	144	344	300
A 106	Diarrhoea of the Newborn	584, 585							1		1						1		1	
A 107	Cholelithiasis and Cholecystitis	536-539, 542-, 544, 545	1		1				4		4	1	1	1	2	1	6	1	7	2
	Other Diseases of Digestive System	573-580, 582, 583, 586, 587																		
A 109	Chronic Other & Unspecified Nephritis	591-594																		
A 121	Infections of Skin and Subcutaneous Tissue	690-698								1	1	3		1	1			1	1	3
A 124	Osteomyelitis adn Periostitis	730							1		1						1	1	1	
A 126	All Other Diseases of Skin and Musculoskeletal System	700-716, 731-736										1								
A 127	Spina Bifida and Meningocele	738-744								2	2	1	2	1	3		2	3	5	1
A 128	Congenital Malformations of Circulatory System	751										1								1
A 129	All Other Congenital Malformations	754	4	1	5	4	1	2	3	1	4	7	5	3	8	11	13	5	18	24
A 130	Birth Injuries	750, 752, 753, 755-759	2	2	4	10		8	3	11	8	8	2	10	8	18	7	25	25	26
A 131	Postnatal Asphyxia and Atelectasis	760, 761	1	1	2	9	1	2	8	3	11	8	8	2	10	8	18	7	25	26
A 132	Infections of the Newborn	762	3	2	5	4	4	3	20	8	28	20	6	5	11	16	28	14	42	47
A 133	Haemolytic Disease of the Newborn	763-768	1	2	3	3	1	4	18	14	32	21	9	6	15	17	34	24	58	45
A 134	All Other Defined Diseases of Early Infancy	770	2	2	2	1	1	1	22	18	40	44	18	20	38	46	42	41	83	97
A 135	Ill-defined Diseases Peculiar to Early Infancy and Immaturity Unqualified	769, 771, 772	1		1	1		1	1	7	19	20	2	1	3	8	15	8	23	30
A 137	Ill-defined and Unknown Causes of Morbidity and Mortality	773-776	23	8	31	34	7	19	84	87	171	166	62	53	115	97	176	155	331	316
AE 138	Motor Vehicle Accidents	780-793, 795	3		3	2	5	4	128	125	253	232	6	6	12	22	142	135	277	260
AE 140	Accidental Poisoning	E810-E835	1		1						1	1				1	1		1	
AE 141	Accidental Falls	E870-E895							1										1	
AE 143	Accident Caused by fire and explosion of Combustible Material	E900-E904																		1
AE 144	Accident Caused by Hot Substance, Corrosive Liquid, Steam and Radiation	E916							1	1	2					1	1	2		
AE 147	All Other Accidental Causes	E917, E918							1		1								1	
		E910, E911, E913-E915, E920-E928, E930-E965	1		1	1	1		1		1					2	3		3	3
AE 149	Homicide and Injury Purposely Inflicted by Other Persons (Not in War)	E980-E985		1	1					1	1			1	1			3	3	
	TOTALS		58	24	82	80	36	58	551	470	1021	930	235	189	424	435	880	711	1591	1503
	INFANT MORTALITY RATES: (Deaths of Infants Under 1 year per 1,000 Live Births)		25.99. (24.64)			46.82 (44.48)			116.67 (104.60)			48.87 (54.50)			72.56 (69.99)					

